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February 2015

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Diving ducks on frozen lakes

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after 10 years**

**Sparrow ID tips
from DAVID SIBLEY**

**Whooping Crane's
greatest obstacle**

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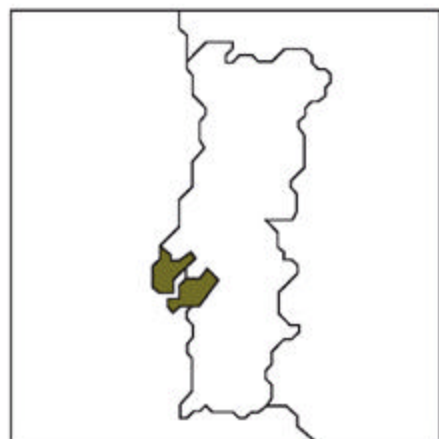


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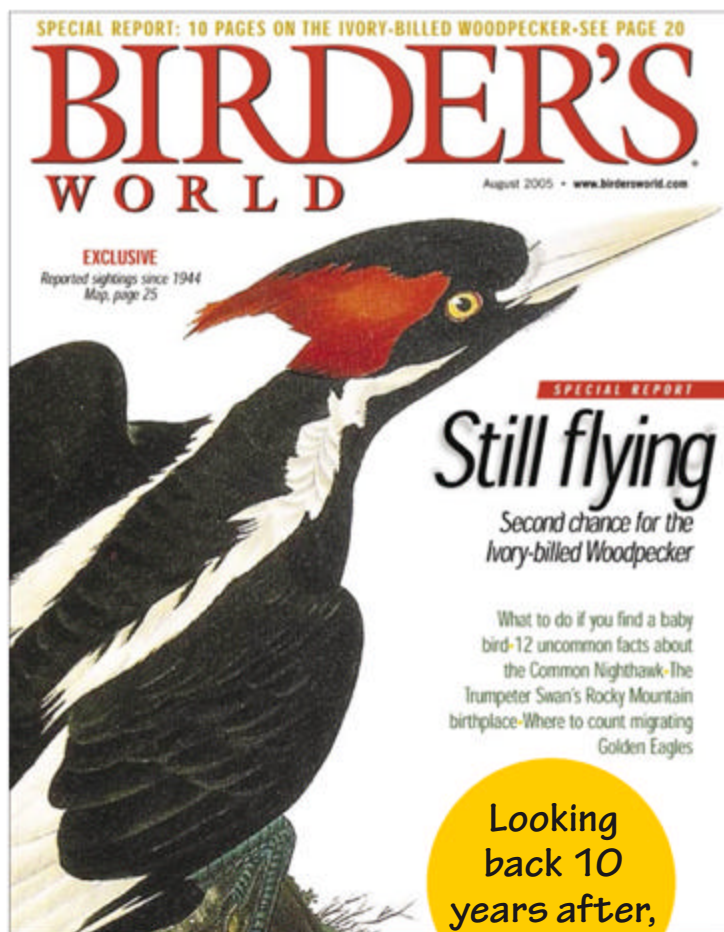


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 **CELESTRON**



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It's not every day that you look out the living-room windows of a house in suburban Milwaukee and see a Red-breasted Merganser waddling down the sidewalk. Yet last March, as the Polar Vortex tightened its grip on the country, that's just what I did.

We had been doing lots of shoveling, so snow was heaped up along the sidewalk. Consequently, I couldn't see more than a dark green head, a shaggy crest, and a slender red bill as the duck wobbled by, but that was enough. I knew what he was and, more important, that he was probably starving.

As you can read in "Frozen," Sheryl DeVore's fascinating article on page 16, most Red-breasted Mergansers while away the winter months fishing along the Pacific or Atlantic coast, or make their way to the warm Gulf coast, but some, perhaps of a more risk-taking frame of mind, choose to ride out the season on the Great Lakes. As long as ice doesn't keep the birds from finding food, Sheryl reports, they do just fine.

But last winter, only small areas of Lake Michigan and Lake Ontario remained ice-free, forcing diving ducks to search for open water in all sorts of strange places — even on my street.

I did what I'm sure you would have done: I grabbed a bath towel, found a box, and ran outside. After a comic chase through deep snow and some fumbling in a neighbor's driveway, I carefully bundled up the bird, took a long look into his wild red eye, and then delivered him to the Wildlife Rehabilitation Center at the Wisconsin Humane Society, where he was nursed back to health in the company of dozens of other ice-bound ducks.

About three weeks later, I learned that my story, like Sheryl's, would have a happy ending. The merganser was successfully released back into the wild. I even got to watch a video of his release.



Chuck Hagner, editor
chagner@madavor.com

BirdWatching

Editor Charles J. Hagner

Managing Editor Matt Mendenhall

Art Director Mike O'Leary

Lead Designer Lizz Anderson

Graphic Designers Lisa Malaguti, Christina Grogan

Founding Editor Eldon D. Greij

Contributing Editors

Julie Craves, Pete Dunne, Laura Erickson,
Kenn Kaufman, David Allen Sibley

Group Publisher Lee Mergner

Director, Sales & Marketing Robin Morse

Sales Manager Jordan Desrosier

jdesrosier@madavor.com | 617-706-9080



Chairman & Chief Executive Officer Jeffrey C. Wolk

Chief Operating Officer Susan Fitzgerald

Director, Business Operations Courtney Carter

Director, Integrated Production Justin Vuono

Supervisor, Sales Administration Laura Finamore

Sales Assistant Jessica Krogman

Circulation Operations Specialist Nora Frew

Controller Peggy Maguire

Accounting Coordinator Tina McDermott

Staff Accountant Heidi Hogan

Supervisor, Sales & Marketing Cathy Pearson

General Manager, Digital Heidi Strong

Web Developer Michael Ma

Production Associate Steve Sangapore

Newsstand National Publisher Services

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Corporate Headquarters

Madavor Media, LLC

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www.BirdWatchingDaily.com

Editorial Offices: mail@birdwatchingdaily.com

By Mail: BIRDWATCHING, 25 Braintree Hill
Office Park, Suite 404, Braintree, MA 02184

Please include your name, mailing address, and
telephone number with any correspondence.

Advertising: jdesrosier@madavor.com
Phone: (617) 706-9080 Fax: (617) 536-0102

Customer Service:

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Klaus Nigge/U.S. Fish and Wildlife Service

AFFECTED BY RISING SEAS: Endangered wild Whooping Cranes forage on the central Texas coast, the only place where the species spends the winter.

High water, high risk

Whooping Crane winter grounds will go underwater as more and more shorebirds face extinction

Two new studies suggest that climate change will pose a severe challenge to both North America's shorebirds and the last wild population of Whooping Cranes.

The first, released last summer by a team organized by the International Crane Foundation and Gulf Coast Bird Observatory, focused on the crane's future winter habitat needs. If targets set by the recovery plan are met, the birds will require at least 125,000 acres along the central Texas coast, enough

for 250 breeding pairs. Yet only 27 percent of that potential habitat is protected.

Worse, estimates of sea-level rise produced by combining the rate of land subsidence with IPCC climate models show that much of the potential habitat will disappear by 2100. From 23 percent to 54 percent will be inundated. Efforts to protect habitat, write the researchers, should focus to the northeast and inland, within grasslands, freshwater wetlands, and agricultural rice fields.

The second study, from researchers at the Manomet Center for Conservation Sciences, Dalton State College, and Tufts University, argues that the conservation status of 52 taxa of shorebirds that breed in North America should be revised.

Many, including Red Knot and Semipalmated Sandpiper, are already in widespread decline. But when the risks posed by climate change — chiefly, the loss of breeding, stopover, and wintering

habitat — are added to their vulnerabilities, the risk of extinction increases for 45 of the 52 taxa.

No species was assigned a lower risk category, while 18 were elevated to the highest risk described by the U.S. Shorebird Conservation Plan. "Thus," write the researchers, "a total of 28 of 49 species are now at the highest risk category under the U.S. Shorebird Conservation Plan, or they exceeded this risk level and had to have an additional category created."



YOUR QUESTIONS
ANSWERED BY
BIRD BANDER
JULIE CRAVES

Starlings often sit on the edge of our chimney. They seem to compete for the space, even on days when it is not especially cold. Why is the chimney so popular?
— *Carter Walters, Chicago, Illinois*

The heat or smoke from chimneys may provide a service to the birds beyond just thermoregulation. The heat can help dislodge various small ectoparasites that may be on a starling's feathers or skin. It may also stimulate the preen gland to produce oils that the bird uses to help protect and maintain its feathers. If your chimney visitors are often fluffing, rearranging, and preening their feathers, they may be taking advantage of the warmth to promote good hygiene.

Please explain how nestlings are hydrated.
— *Jack Voytko, Pittsburgh, Pennsylvania*

All songbirds hatch with their eyes closed, have few or no feathers, and are unable to leave the nest. Parents tend the nestlings for several weeks; the developmental state is known as *altricial*. Obviously, the young birds cannot find or drink water on their own,

(continued on page 10)

Julie Graves is supervisor of avian research at the Rouge River Bird Observatory at the University of Michigan Dearborn and a research associate at the university's Environmental Interpretive Center.

EYE ON CONSERVATION



Greg Hodel, Natural Elements Productions

LUSTROUS: Great Curassow can be found from Mexico to Ecuador but is limited to parks and reserves.

More protection for curassows, other birds

A major land purchase has added almost 1,200 acres to a forested reserve in the highly threatened Chocó region of Ecuador.

The expansion will bring protection to over 6,100 acres and more than 360 species of birds. It resulted from the purchase in September 2014 of six properties adjacent to the Río Canandé Reserve, which is located in Esmeraldas province, in a coastal tropical rainforest that extends from southern Colombia to northern Ecuador. The region ranks as the fourth most significant biodiversity hotspot in the world.

The reserve and neighboring properties are situated in the Chocó Endemic Bird Area, which has one of the highest numbers of restricted-range bird species in the world, 62 in all. The forests also boast one of the highest concentrations of endemic species: Approximately 25 percent of the species that occur there can be found nowhere else.

Further, the area contains no fewer than 16 globally threatened and near-threatened spe-

cies, of which at least 13 occur on the reserve, including Plumbeous Forest-falcon, Great Curassow, and Great Green Macaw.

Unfortunately, less than 10 percent of the original Chocó forest remains intact. Leading causes of the loss include timber extraction, the rapid spread of palm-oil plantations, bio-fuels development, agricultural activities, and the expansion of settlements.

The Río Canandé Reserve is surrounded by significant tracts of forested land, including the Chachi indigenous territory; a state forestry area that maintains large amounts of intact forest; the buffer zone of the Cotacachi-Cayapas Ecological Reserve; and the nearby El Pambilar Wildlife Refuge, a protected area of about 7,413 acres recently created by the government in a former timber-extraction site.

The purchase was a joint effort of Fundación Jocotoco, Rainforest Trust, American Bird Conservancy, World Land Trust, and March Conservation Fund.



American Bird Conservancy is a 501(c)(3), not-for-profit organization whose mission is to conserve native birds and their habitats throughout the Americas. You can learn more about visiting the Río Canandé Reserve at www.jocototursecuador.com/en.

Urbanization effects

Four birds thrive in urban areas, but three don't

Urbanization, scientists say, can be either good or bad for birds.

It can be beneficial because suburban areas typically provide abundant food resources, including backyard feeders, which help seed-eaters, and they are dominated by ornamental and invasive plantings, which have been found to be essential for fruit-eaters, especially in winter. But urban and suburban regions also harbor free-roaming cats and other mammalian predators, as well as raptors and crows, meaning city birds may face higher rates of predation than their country cousins.

Worse, collisions with buildings and automobiles, higher rates of disease transmission (especially around feeders),

and exposure to elevated levels of pollutants such as lead are all costs of living in urban areas.

So which effects dictate avian survival more, the good or bad? To find out, Brian S. Evans and other researchers from the University of North Carolina at Chapel Hill and the Smithsonian Migratory Bird Center studied seven common species in the metropolitan Washington, D.C., area for over a decade and then compared where on the rural-to-urban gradient they fared best.

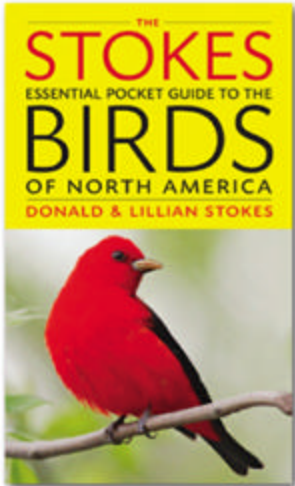
Four of the seven — American Robin, Gray Catbird, Northern Cardinal, and Song Sparrow — survived better in suburban and urban areas than at the rural end of the spectrum. All are habitat generalists whose diets consist largely of

fruit and invertebrate resources. The three others — Carolina Chickadee, Carolina Wren, and House Wren — had low survival rates everywhere but appeared to do best in rural areas. All three nest in cavities. Those in urban and suburban areas, suggest the researchers, may have found fewer cavity trees or experienced greater competition for them from starlings or House Sparrows.

“Cumulatively, our results suggest that the effect of urbanization influences avian vital rates,” write the researchers, “but that the regulatory mechanisms may be species-specific.”

The area of developed land in the United States is projected to nearly double between 2000 and 2025.

What we're reading



STOKES ESSENTIAL POCKET GUIDE

By Donald and Lillian Stokes

Don and Lillian Stokes's 35th book is a slim pocket guide for beginning and intermediate birdwatchers who bird primarily at home. The authors describe only 250 species on 288 pages but include photos, song and behavioral descriptions, range maps, and key ID clues for each one. They also explain birds' nesting behaviors, habitats, and food and feeding habits. Read our interview with the Stokeses at www.BirdWatchingDaily.com.



BIRDS OF FLORIDA

By Bill Pranty

This is the third book in the new series of excellent state field guides from the American Birding Association. Bill Pranty, the author of the ABA's acclaimed *A Birder's Guide to Florida* and the chair of the ABA Checklist Committee, provides concise descriptions of more than 300 species, including tips on when and where to see them. We'll be sure to pack the guide on our next trip to the Sunshine State.

Well deserved

AOU honors puffin conservationist, bird-coloration expert

Two ornithologists familiar to readers of *BirdWatching* magazine received high honors from the American Ornithologists' Union recently.

The first was Geoffrey Hill, one of the world's leading experts on bird coloration and the evolution of animal signals. He received the William Brewster Award, given annually to the author or co-authors of an exceptional body of research on birds of the Western Hemisphere.

The curator of birds at Auburn University, Hill gained fame as the leader of a team that looked for the Ivory-billed Woodpecker in the Florida Panhandle after he and two colleagues reported seeing the bird there in 2005. He wrote about his under-the-radar search in our February 2007 issue. (See

page 22 of this issue for an update on the Ivory-bill.)

The second was Stephen Kress, vice president for bird conservation for the National Audubon Society and the founder of Project Puffin, who received the Ralph W. Schreiber Conservation Award for his work with numerous seabirds.

For decades, Project Puffin has worked to restore colonies of Atlantic Puffins to islands in the Gulf of Maine. (Kress was quoted about the birds' successful 2014 nesting season in our December issue; see "Birding Briefs," page 7.) Arctic Tern, Razorbill, and other species have also benefited from his work, and the project's techniques have been used in 12 countries on at least 40 seabirds, including Short-tailed Albatross in Japan and Gould's Petrel in Australia.

(continued from page 8)

nor are their parents able to bring it to them in liquid form. Chicks receive hydration from their food. Even songbirds that typically visit your feeder and eat seeds most of the year feed their young insects, which contain a great deal of moisture. Pigeons and doves are notable exceptions. They create a milky substance in their crops, regurgitate it, and feed it to their chicks, providing them with nutrients and moisture.

I enjoy watching nuthatches take peanut pieces from my feeder and hide them for later under loose tree bark. I've also seen them put peanuts in holes in a utility pole. Once, I saw House Sparrows cling to the pole and steal the peanuts. Is this unusual behavior? — Charles Zimmerman, New York, New York

Nuthatches are just one of the species at your feeder that commonly store food items to eat later, a behavior known as caching. Other birds you might see stashing food are chickadees, titmice, and jays.

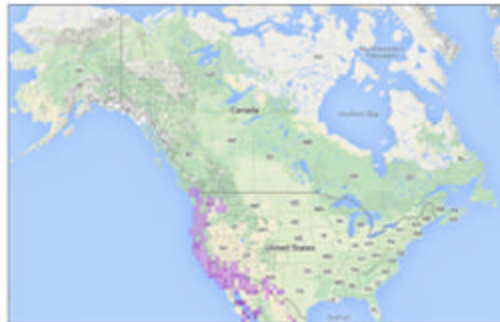
House Sparrows, on the other hand, do not typically cache food, but they are quite adaptable and resourceful. If they observe other birds hiding food, it would not be unusual for them to take advantage of an unguarded hoard. House Sparrows are not too adept at clinging to vertical sides, but if a surface has sufficient texture, they can get a brief grip. I've seen them occasionally on rough tree bark, picking insects off brick walls by cling-

(continued on page 12)

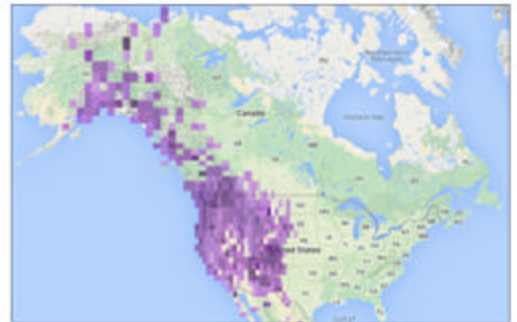
ON THE MOVE FROM eBIRD

A swallow and goose that fly north in February

Violet-green Swallow



February 2004-14



July 2004-14

Compiled from 2004-2014, the eBird maps above compare the distribution of Violet-green Swallow in February and July. In February, the species is on the move, migrating north from wintering areas in southern California, the desert southwest, Mexico, and northern Central America. Violet-green tends to migrate along major water bodies and should be looked for with other swallow species over lakes and rivers. The first mild temperatures in February often lead to a pulse of birds arriving in the Pacific Northwest. In July, the species is found across the western lower 48 states, western Canada, and central Alaska, where it occurs only patchily north of Fairbanks. On the July map, many of the purple squares in Mexico represent uncommon nesting records. The bird is rarely reported outside its normal western range, although it can turn up across the eastern states and provinces at any time of year.

Greater White-fronted Goose



February 2004-14



July 2004-14

Greater White-fronted Goose breeds across arctic and sub-arctic regions of Alaska and northern Canada and winters primarily along the Pacific coast, in the southern Great Plains, and in parts of Mexico. Key wintering concentrations are in California's Central Valley, Texas, Louisiana, and northern Mexico. These eBird maps cover the last 10 years and show how the bird's distribution changes from February to July. In February, many geese have begun migrating and are found in the Pacific states, throughout much of the Midwest, and in small numbers in the Northeast, where they often join with flocks of Canada Geese. By July, the species has mostly vacated its winter range and occurs in northern and central Alaska and across the arctic regions of northern Canada. Purple squares along the Pacific coast and in the central and southern United States represent non-breeding geese that didn't fly north for summer.



eBird is the real-time online checklist operated by the Cornell Lab of Ornithology and Audubon. "On the Move" is written by eBird's Garrett MacDonald, Chris Wood, Marshall Iliff, and Brian Sullivan. Submit your bird sightings at ebird.org.

Time to count

Report your bird sightings in February's Great Backyard Bird Count

Participants in last year's Great Backyard Bird Count — more than 142,000 people in 135 countries — provided plenty of reasons for you to join the fun this year.

They tallied 4,296 species in all, including 819 species in India, the most from any country, and more than 17.7 million individual birds. The most numerous species were birds that typically gather in huge winter flocks: Red-winged Blackbird (1.6 million), Snow Goose (1.3 million), Canada Goose (1.2 million), European Starling (596,450), and Mallard (542,516).

More than 87 percent of checklists came from birders in the United States. Nine percent were submitted by Canadians. Northern Cardinal appeared on more checklists (61,045) than any other species. The other most frequently reported birds were familiar Dark-eyed Junco, Mourning Dove, Blue Jay, and Downy Woodpecker.

Participants also tracked last year's impressive Snowy Owl invasion. More than 1,600 owl reports came from 34 states and provinces; Ontario had the most reports with 366 owls on 234 checklists.

You can learn more about this year's count, slated for February 13-16, at gbbc.birdcount.org.

Secret life of birds



TONGUE AND GROOVE: A male Pileated Woodpecker extends a lengthy tongue while tending to a chick. As Founding Editor Eldon Greij explained in our December 2013 issue, woodpeckers have extraordinarily long tongues that they store in a curving channel within their skulls.

Melissa Groo

Morning flyers

Birds fly at sun-up after drifting off course at night

Researchers using a novel combination of weather-radar data, flight-call recordings, and wind measurements have provided new insights into the magnitude and direction of the puzzling movements known as morning flights.

Night-migrating birds make the flights after dawn, moving above tree height either singly or in loose groups and usually in the direction in which they migrated the night before, but not always; sometimes morning flight is in a direction opposite their intended goal.

A team including Paul Kerlinger, David Sibley, and Richard Crossley documented morning flight among more than 60 species of autumn migrants at Cape May, New Jersey, in 1988 and 1989. The researchers concluded that the flight consisted of birds returning to land after

being blown out to sea the previous night, birds compensating for lateral drift incurred during migration, and birds seeking habitat where they could rest and find food.

In the latest study, conducted in fall 2010, Benjamin M. Van Doren from Cornell University and investigators from the University of Massachusetts at Amherst and the Cornell Lab of Ornithology compared morning flights at seven inland and coastal locations in New York and Pennsylvania.

Morning flights were larger in coastal areas than inland, despite the fact that nocturnal migratory movements were generally larger farther inland. Moreover, flights were larger on mornings following nights in which breezes were more likely to push birds off course. The results,

write the researchers, suggest that “the drive to compensate for wind drift contributes to observed morning flights in concert with the search for appropriate stopover habitat.”

Just as interesting, morning-flight directions differed from site to site. Migrants near Ithaca moved south-south-east, for example, while birds in Manhattan flew west and birds in Rye moved north-northwest, leading the researchers to conclude that local conditions, such as topography and the distribution of suitable habitat, are also important considerations when interpreting the direction of morning flight.

Van Doren and his colleagues published their study in *The Auk: Ornithological Advances*, the journal of the American Ornithologists' Union.

(continued from page 10)

ing to the mortar, and, like you, on utility poles.

The nuthatches won't go hungry, though. They usually tuck away more morsels of food than they get around to retrieving later.

I watched a nuthatch hopping around a blue-bird nest box. It looked like it was going to enter, and because neither bluebird parent was present, I chased the nuthatch away. Would it have hurt the young bluebirds? — Doris Farr, Belmont, Michigan

Nuthatches nest in cavities and will also use boxes, especially if located near a forest edge. I suspect the nuthatch was only checking out the box as a potential nest site. I don't think that it would have harmed the chicks. In fact, I have read more reports of bluebirds evicting nuthatches than vice versa. If the parents had seen the nuthatch, I suspect they would have chased it away.

Audubon North Carolina is encouraging the installation of nest boxes for Brown-headed Nuthatch, a species of conservation concern. The boxes will help make up for habitat loss that is causing a decline in the population. See nc.audubon.org/nuthatch for information.

Send a question

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PHOTO GALLERY

Recent rare-bird sightings in North America



Jordan Dunn

SECOND IN WASHINGTON: In late October and early November, birders saw this Eurasian Hobby in the Waatch River Valley in northwestern Washington.



Eric VanderWert

FIRST IN HAWAII: This juvenile Spotted Redshank, a Eurasian shorebird, was found at a wastewater-treatment plant on the Big Island in November.



Tiffany Kersten

FIRST IN TEXAS: In late November, birders found this Red-legged Honeycreeper at Estero Llano Grande State Park in South Texas.



Jeff Bray

SECOND IN CALIFORNIA: Far from home in Asia and Europe, this Olive-backed Pipit was seen in early November at a park in Anaheim.



Kai Sheffield

SECOND IN NEW YORK: This Cassin's Kingbird, a western flycatcher, was seen at Floyd Bennett Field in Brooklyn in November and December.



Greg Miller

SEVENTH IN NEW JERSEY: This Calliope Hummingbird, a bird of the West, was seen in a yard in western New Jersey in mid-November.

Festivals + events

Fun things to do in January and February

January 14-18

Wings over Willcox
Willcox, Arizona

January 15-19

Everglades Birding Festival
Plantation, Florida

January 16-18

Southwest Florida
Nature Festival
Naples, Florida

January 16-19

Morro Bay Winter Bird Festival
Morro Bay, California

January 17

Wintering Golden
Eagle Survey
Blufflands of Minnesota,
Wisconsin, and Iowa

January 17-18

Tennessee Sandhill
Crane Festival 2015
Birchwood, Tennessee

January 21-25

Snow Goose Festival
of the Pacific Flyway
Chico, California

January 21-26

Space Coast
Birding and
Wildlife Festival
Titusville,
Florida

Editor
Chuck Hagner
will give two
talks!

January 24

Superbowl of Birding XII
Essex and Rockingham
Counties, Massachusetts

January 31

Winter Hummingbird Tour
Baton Rouge, Louisiana

February 4-7

Laredo Birding Festival
Laredo, Texas

February 6-8

Birds of a Feather Fest
Palm Coast, Florida

February 6-8

SparrowFest Retreat
Marble Falls, Texas

February 7

Winter Bird Festival
Cosumnes River Preserve,
Galt, California

February 11-12

Citizen Science
Inaugural Conference
San Jose, California

February 12-15

Winter Wings Festival
Klamath Falls, Oregon

February 13-15

San Francisco Bay
Flyway Festival
Mare Island, Vallejo, California

February 13-15

Sax-Zim Birding Festival
Meadowlands, Minnesota

February 19-22

Whooping Crane Festival
Port Aransas and Mustang
Island, Texas

February 21

California Duck Days 2015
Yolo Bypass Wildlife Area,
Davis, California

February 21

Orlando Wetlands Park
Festival
Christmas, Florida

February 24-March 1

ABA Institute of Field
Ornithology
Lafayette and Lake Charles,
Louisiana

February 28

Burrowing Owl Festival
Cape Coral, Florida

February 28-March 1

Wisconsin Breeding Bird
Atlas Kickoff Meeting
Rothschild, Wisconsin

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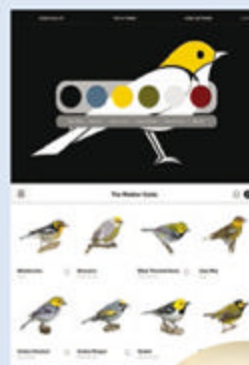


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Wade and Melissa Rowley

THIRD NORTH AMERICAN RECORD: This Whiskered Tern was spotted at Cape May in September.

Just the facts

Cape May might just be the best birding location anywhere

Cape May, New Jersey: the greatest birding location on the planet?

I'm posing this as a question, not stating a fact, but I do think a case could be made for Cape May's first-place ranking.

I freely admit that I may not be the best person to make this determination. As widely as I have traveled, I have yet to go everywhere, so my sampling of great destinations remains incomplete.

I will state only the facts as I know them, starting with the grand total: The Cape May County checklist exceeds 430 species, more than many states' lists. About 350 species are recorded annually.

The Cape has long been recognized as a vagrant trap, a place where extralimital sightings are regular to annual. Species that are not typically found in the northeastern United States but occur annually include Mississippi and Swallow-tailed Kites, Curlew Sandpiper, Little Gull, and Cave Swallow. Now compound this diversity with massed concentrations of migrating birds both spring and fall — fallouts involving at times many millions of birds.

But fallouts are unpredictable, and human travelers beg a measure of certainty. To this end, I offer the Cape May autumn hawk migration, whose

average of 50,000 birds per year depends less on weather than counts at many other hawk-watching junctions. On any day from late September to mid-October, hawks will be in the air, while in spring, the celebrated concentrations of Red Knot and other shorebirds are as predictable as the tide.

Cape May's fame as a birding destination goes back two centuries, beginning with the pioneering studies of Alexander Wilson, the Father of American Ornithology, who made six trips in the early 1800s. He was followed by Spencer Baird, John James Audubon, John Krider, Witmer Stone, Roger Tory Peterson, and David Sibley. No North American birding location enjoys a more enduring ornithological tradition.

Two type specimens were collected here — Wilson's Warbler and Cape May Warbler — and new North American records continue to be found. The most notable, and most recent, was Whiskered Tern, spotted in September from the platform at Cape May Point State Park. It was only the third record for both Cape May and the continent.

The Cape's fame as a vagrant trap is also due to the acumen and diligence of its large, active, year-round birding community — an avocational infrastructure facilitated by the Cape May Bird Observatory (CMBO). The community welcomes and supports visiting birders, and its growing presence underscores just one more compelling Cape May attribute.

Despite fame as a migration hotspot, the birding is good year-round. Extensive forests in the northern part of the county and along Delaware Bay are rich in breeding species of a southern persuasion — birds like Chuck-will's-widow, Summer Tanager, and Prothonotary and Yellow-throated Warblers, to name a few.

Coastal wetlands teem with herons, egrets, and shorebirds April through September. And not to be forgotten are the Heislerville impoundments, a shorebird mecca in adjacent Cumberland County. In May it becomes the Curlew Sandpiper capital of North America. Multiple birds are seen each season.

In winter, the marshes and near-shore waters host thousands of wintering waterfowl, and migrating seabirds continue to pass the seawatch at the north end of Avalon into February.

I have other favorite birding experiences: the Sandhill Cranes on the Platte River in Nebraska in March, for example, and the marine life to be found off Monterey, California, in August. But for year-round spectacles, I can't think of a place that matches Cape May.

Winters are unpredictable but never disappointing. Snow pack is not common, so many raptors hunt coastal wetlands for rodents that have no place to hide. Many passerines also winter on the Cape. The Christmas Bird Count commonly tallies 165 species, usually the highest total in the Northeast.

For those who enjoy leisurely birding, Cape May claims both the spring and autumn Big Sit record — that is, the

most species tallied from a single, fixed observation point. The spring record is 143. The autumn standard is 150. And for many years, Cape May held the North American yard-list record, too: 316 species were seen in or from the yard of birder Paul Lehman, the principal consultant on so many field guides. He now lives in San Diego.

Supporting the bird wealth and offering free access to birders are state and private institutions dedicated to maintaining open space and bird-friendly habitat. These include New Jersey's Division of Parks and Forestry, the state Division of Fish and Wildlife, the U.S. Fish and Wildlife Service, and the Nature Conservancy, as well as the Borough of Cape May Point and other municipalities.

CMBO offers walks, workshops, and programs throughout the year, and the resort town of Cape May provides a fine

visitor infrastructure located only two hours from Philadelphia, three hours from New York, and five hours from Washington, D.C. No wonder Cape May is becoming increasingly popular with European birders.

There are many extraordinary locations on the planet, and I aspire to visit all of them, but of those I know of, only one offers migratory concentrations spring and fall, great species diversity, high vagrancy potential, plus two annual massed spectacles (raptors in fall, staging shorebirds in spring). Add to this a 200-year-old birding tradition, a network of helpful birders, plus the amenities of a resort town, and you have one extraordinary birding destination.

Maybe even the best. 

Pete Dunne is New Jersey Audubon's birding ambassador at-large.



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CAUGHT IN THE COLD: A female Red-breasted Merganser lands on Lake Erie in February 2014. As the ice on the Great Lakes grew last winter, patches of open water required by diving ducks became smaller and smaller.

FROZEN

Why last winter's near-total ice cover on the Great Lakes
wasn't enough to harm populations of diving ducks

by Sheryl DeVore

IT'S A TIME-HONORED winter tradition in the Great Lakes region:

While birdwatchers dressed in layers for warmth peer through spotting scopes and binoculars in pleasure and wonderment, hardy mergansers and scaup bounce on the waves, and male golden-eyes toss their heads on their backs to court females.

During the winter of 2013-14, however, the Great Lakes largely froze over, and birders, biologists, and naturalists viewed a spectacle many likely had never seen before: diving ducks, unable to find food because of the ice, dying. Some washed up on shore, emaciated. Others became trapped in freezing rivers and at cooling reservoirs at power plants.

Michigan Department of Natural Resources waterfowl biologist and pathologist Tom Cooley received hundreds to thousands of dead ducks from various points along Lake Michigan. Birders retrieved and brought to his lab 227 dead Greater Scaup, Red-breasted Mergansers, Common Goldeneyes, and White-winged Scoters along Traverse Bay in northwestern Michigan alone.

Extensive ice also covered New York's Niagara River corridor between Lake Erie and Lake Ontario, a key wintering spot, preventing species like mergansers from diving for minnows. Connie Adams, a biologist with the New York Department of Environmental Conservation, told the Associated Press she counted at least 900 dead diving ducks.

It was one of the coldest winters in the Great Lakes region in 35 years. Only small areas of southern Lake Michigan and western and central Lake Ontario had ice-free stretches, according to the National Oceanic and Atmospheric Administration (NOAA). As a result, fish died, ducks had few places to dive for fish and other foods, and birds concentrated in smaller and smaller areas of open water, eventually starving to death.

At least 10,000 ducks wintering on the Great Lakes perished from starvation, estimates Michael Schummer, a waterfowl specialist and visiting assistant professor at the State University of New York at Oswego, on the southeastern shore of Lake Ontario. Necropsies performed by wildlife biologists



SUMMER: On the breeding grounds in Alaska, a young Bufflehead peers from the cavity in which it hatched.

Michael Quinton/Minden Pictures

showed the ducks had little to no food in their stomachs and were half their normal weight.

Though alarming, the die-off likely did not affect the overall populations of the species that perished, Schummer and other wildlife biologists say. Diving ducks, they remind us, are evolutionarily adapted to periodic die-offs. More worrisome is how threats such as climate change, habitat destruction, and invasive species are affecting the ducks.

DEFINING DIVERS

Dabbling ducks feed in shallow water by tipping their heads and necks beneath the surface. Mallard, American Black Duck, Northern Pintail, Green-winged Teal, Blue-winged Teal, Gadwall, Northern Shoveler, and American Wigeon are all dabbling ducks.

Diving ducks have shorter wings relative to their body size compared with dabbling ducks. This attribute enables them to swim underwater to take fish, plant tubers, mollusks, and mussels. Though strong swimmers, divers walk on land with more difficulty than dabblers, and they have to run on the water to take flight.

“Dabblers, at the most, go below the surface about 18 inches,” says Heath Hagy, director of the Illinois Natural

“Unprecedented numbers of White-winged Scoters showed up on bodies of water at inland locations in the eastern United States.”

History Survey’s Forbes Biological Station in Havana, Illinois. “Divers go from 2 to 90 feet or more.”

In North America, common diving ducks include Canvasback, Redhead, Ring-necked Duck, Greater and Lesser Scaup, Common and Barrow’s Goldeneyes, Bufflehead, Long-tailed Duck, Red-breasted, Common, and Hooded Mergansers, and White-winged, Surf, and Black Scoters.

Each species requires different habitats for nesting. Lesser Scaup, for example, breeds mostly in Canada’s boreal forest but also in the Prairie Pothole Region in the northern United States. The female builds the nest, a cup of grass lined with her own down, on the ground near permanent wetlands, where she can find a cornucopia of aquatic insect larvae to eat. She lays nine or more eggs.

In contrast, Bufflehead breeds near lakes in northern forests, often a mix of conifers and poplars, mostly in Canada and Alaska. The female doesn’t build a nest. Rather, she lays up to

13 eggs in woodpecker holes, favoring old Northern Flicker nests.

Come autumn, the divers follow migratory paths that lead from their northerly breeding grounds to the Great Lakes, both coasts of the continent, and smaller bodies of water and rivers — where they search for submerged plants, tubers, aquatic invertebrates, mussels, and, in the case of mergansers, small fish and minnows.

WINTERING CHOICES

Each species stages in small to large populations at locations where they can find food. Diving ducks court and establish pair bonds while on their wintering grounds.

Most Lesser Scaup winter along the Gulf of Mexico and the Florida coast and will even go as far south as Central America and Ecuador. Smaller numbers spend the winter on the Great Lakes. Bufflehead overwinters on coasts, saltwater bays, and large bodies of water, including the Great Lakes. Canvasback, Common Goldeneye,

WINTER: On February 3, 2014, snow paints Lake Michigan's Green Bay entirely white, while ice covers almost all of Lakes Huron and Erie.



Red-breasted Merganser, and Common Merganser winter along the Pacific coast from south-coastal Alaska to Baja California, as well as on the Great Lakes and Mississippi River. Long-tailed Duck winters on both coasts, as well as on bays such as Chesapeake Bay, and on the Great Lakes.

“A lot of diving ducks go to Laguna Madre in South Texas and Chandler in Louisiana for the winter,” Hagy says. “It’s a key diving-duck wintering habitat. Along the Gulf of Mexico is also an important diving-duck wintering ground.”

According to a recent paper, 80 percent of the continent’s Redheads spend the winter in Laguna Madre, where they can number up to several hundred thousand. Small numbers of Redheads winter on the Great Lakes.

Aerial waterfowl surveys by the Louisiana Department of Wildlife and Fisheries showed upward of 500,000 diving ducks wintering along the Gulf coast in the state, with fewer numbers last winter.

Understanding why some divers fly to Louisiana, South Texas, or the Caribbean while others winter on the Great Lakes or the coasts is difficult. Why *do* some Bufflehead go all the way to Florida in winter, while others remain in Ontario?

One possibility is that, except for last year, North America has experienced mild winters, and diving ducks are fairly long-lived, Schummer says. “They’ve tested the Great Lakes, and they’ve done well. They’ve been able to stay three or four years in a row — they found a mate there.”

Patrick Brown, head of the biology department at Northern Michigan University, on the shore of Lake Superior in Marquette, Michigan, has studied waterfowl for 30 years. He reports that numbers of diving ducks have been increasing on the Great Lakes for a few decades. In most winters, periodic thaws occur, opening up the water so the ducks can dive for food. Brown says ducks remaining farther north don’t need to expend as much energy migrating back to breeding grounds. “If they can stay and they have good food sources, it’s to their advantage,” he says.

Schummer adds that diving ducks that remain farther north likely have a better chance at getting choice breeding spots come spring, while birds that fly farther south can often find better and larger feeding areas in winter. “That’s why there’s such diversity of behavior in the gene pool,” he says.

Banding data from 1980 show that most adult diving ducks return to their

Diving-duck hotspots

Here are a few excellent places to view diving ducks in winter.

TEXAS

HOTSPOT: Laguna Madre

TYPICAL SPECIES: Redhead, Common Merganser

WISCONSIN, ILLINOIS, AND INDIANA

HOTSPOT: Milwaukee and Greater Chicagoland lakefronts

TYPICAL SPECIES: Greater Scaup, Common Goldeneye, Common and Red-breasted Mergansers, and fewer numbers of Bufflehead and White-winged Scoter

TENNESSEE

HOTSPOT: Guntersville Lake

TYPICAL SPECIES: Winter home to 60,000 ducks

SOUTH CAROLINA

HOTSPOT: Matamuskeet NWR

TYPICAL SPECIES: 20 species of dabbling and diving ducks

VIRGINIA

HOTSPOT: Chincoteague NWR

TYPICAL SPECIES: Three scoter species, Long-tailed Duck, Bufflehead, and Red-breasted Merganser

NEW YORK

HOTSPOT: Niagara River Corridor between Lake Erie and Lake Ontario

TYPICAL SPECIES: Long-tailed Duck, Bufflehead, Common Goldeneye, Red-breasted Merganser, Greater Scaup, and Canvasback

NEW YORK AND NEW JERSEY

HOTSPOT: Harbor Bight region

TYPICAL SPECIES: Greater and Lesser Scaup; Common, Hooded, and Red-breasted Mergansers



TABLET EXTRAS

Tap the links below to learn more about the Great Lakes and diving ducks.

GREAT LAKES

Threats to the Great Lakes and the steps needed to protect them.

DUCKS TO WATCH FOR

Where to look for White-winged Scoter and Common Merganser in winter.

FROZEN

Josh Engel's report from the Chicago Lakefront during last winter's deep freeze.

RESCUED

Watch the release of diving ducks and a Red-throated Loon rescued in Wisconsin during the freeze-up.

GREAT LAKES ECHO

News about the lakes from the Knight Center for Environmental Journalism at Michigan State University.

NOAA DATA

Real-time data on ice cover, wind speeds, and other measurements from NOAA's Great Lakes Environmental Research Laboratory.

ADVOCATES

Learn about the Healing Our Waters-Great Lakes Coalition, more than 115 conservation organizations whose common goal is to restore and protect the Great Lakes.

No tablet? Find a link to all Tablet Extras at www.BirdWatchingDaily.com/the-magazine/current-issue

previous year's wintering spot. So site fidelity also has something to do with their choice.

DECIDING TO LEAVE

"The reality is, when the weather got as bad as it did last year, a lot of birds did leave," Schummer says. Thousands of Bufflehead that winter on the Canadian side of Lake Ontario departed as the water began to freeze over.

Birds also flew to rivers and lakes, as well as into marinas and near power plants where heated water is released, keeping the area free of ice, Cooley says. But divers succumbed to the weather last winter season even at power plants. A total of 305 White-winged Scoters, Red-breasted Mergansers, Long-tailed Ducks, and Common Goldeneye perished at a hydroelectric plant and reservoir at Ludington, Michigan, on the shore of Lake Michigan.

"These are all divers — there wasn't a dabbler in the group. They are submerging to get their food. They have to have open water to get their food source. They either have to up and leave, or if they're malnourished, they aren't capable of doing that," he says.

Divers in the winter sometimes just fly in some direction looking for water, Schummer says.

"When they run out of steam, they stop. Last winter, I was finding dead ducks on the roads. On a moonlit night, the road looks like water."

Last season, White-winged Scoters that were wintering on the bays and inlets of Lake Superior flew south as the lake froze. This made it a good White-winged Scoter year for birdwatchers in Illinois, Ohio, Kentucky, Indiana, and other Midwestern states where large bodies of water are found.

In January, "unprecedented numbers of White-winged Scoters showed up on bodies of water at inland locations in the eastern United States including Kentucky," wrote Brainerd Palmer-Ball Jr. in *The Kentucky Warbler*, the quarterly journal of the Kentucky Ornithological Society. The state also witnessed higher-than-normal numbers of Redhead, Canvasback, and Common Merganser, he wrote.

WINTER THAW

Schummer recalls telling students in his winter ornithology class last March that if the weather didn't break, they were going to see a lot of dead ducks.

March was the big period last year for finding dead divers, he says. "In Buffalo, it really seems like it hit every species. Usually at that time, some birds get too



RESCUED: The Redhead at far left, the Greater Scaup above, and the Red-necked Grebe at left were among the many birds that were nursed back to health at the Wildlife Rehabilitation Center at the Wisconsin Humane Society in Milwaukee last winter. The Redhead was returned to the wild in early January, the grebe in early April.

Wisconsin Humane Society (3)

Common diving ducks

- Canvasback
- Redhead
- Greater and Lesser Scaup
- Common and Barrow's Goldeneyes
- Bufflehead
- Long-tailed Duck
- Red-breasted, Common, and Hooded Mergansers
- White-winged, Surf, and Black Scoters

tired even to swim, and they crawl up on the edge of the ice and die and freeze.”


Fortunately, the thaw usually begins then and most of the ducks find food and fatten up for migration, but that didn't happen last winter. On March 6, 2014, NOAA reported that 92.2 percent

related to an invasion of nonnative zebra mussels. The mussels ingest selenium, a naturally occurring element that can be toxic in high amounts.

The pieces haven't been put together yet, but ducks that eat the zebra mussels in winter could be concentrating

new introduced species into the Great Lakes. It changes distribution of these birds, how they feed and what they feed on. They're having to adapt quickly to new food sources.”

Diving ducks also deal with contaminants in the waters where they feed in winter. Soil erosion is a source. It can increase turbidity in rivers and lakes, reducing the number of submerged aquatic plants that diving ducks eat.

As Mike Anderson, one of the co-founders of Ducks Unlimited Canada's Institute for Wetland and Waterfowl Research, wrote recently: “The challenges for diving-duck conservation are immense. . . . Clean waters free of excess sediments, nutrients, and toxins mean healthy plants, clams, and ducks.” 

of the Great Lakes was still completely covered with ice.

Even with the sad stories told last winter, Schummer doesn't think the duck die-off affected populations of those species. “It's just a blip. I know it was difficult to stomach,” he says. “But what happened will reinforce their migratory behavior. The ones that survived went farther south.”

Brown agrees: “It's heart-wrenching to see local populations eliminated, but that's fundamentally what happened. The heartland of the wintering area for those species is going to be farther south.”

CHANGING ECOLOGY

Brown is more concerned about other threats to diving ducks. Research, for example, has shown that declining scaup numbers in the Great Lakes may be

selenium and other toxins in their bodies and getting sick, Brown says.

Cooley says his research has also shown higher levels of selenium in diving ducks, especially last winter. “But we have to consider that we're dealing with birds in poor condition — and that could skew some of the values.”

Josh Engel is a research assistant at the Field Museum in Chicago. He retrieved 30 dead Red-breasted Mergansers and a few White-winged Scoters off Lake Michigan in March 2014, yet he agrees that one bad winter isn't nearly as much to worry about as other problems affecting diving ducks.

“We probably need to be worried more about climate change and habitat destruction, about the long-term effects and the ecology of where they live,” he says. “We keep getting these

Sheryl DeVore is a longtime contributor to BirdWatching. She is the chief editor of Meadowlark, the quarterly magazine of the Illinois Ornithological Society, a department editor for Birding magazine, published by the American Birding Association, and the co-author of Birds of Illinois (Lone Pine Publishing, 2004) and other books. She works as a freelance writer and photographer for the Chicago Tribune and Sun-Times Media.

Ghost bird

Ten years after Ivory-bill fever swept the nation, a scientist assesses the hope, hype, and disappointment

BY JEROME A. JACKSON

IN THE 1912 BOOK *Bird Children*, Elizabeth Gordon wrote, “Birds are poetry come to life and set to music.” Her words eloquently express some of the emotional, philosophical, and cultural attachment we have for birds.

Our affinity for birds begins early because they are ubiquitous in our environment; active when we are active; diverse in color, behavior, and voice; and can be brought close by providing them food and housing. We marvel at their displays, envy their flight, and hold them as models for their parenting and subjects of lessons about the natural world for our children. At the same time, we value birds as sources of food, objects of sport, controllers of insect pests, consumers of weed seeds — or raiders of crops and pests that interfere with our activities in other ways.

For all of these reasons, we study birds. We catalog their diversity, seek to understand their interactions with their

environment, and work through conservation to assure their continued existence.

As our culture has grown, so have our relationships with and our understanding of birds. A little over a century ago, we collected them, their eggs, and their nests, just as kids of more recent generations have collected baseball cards and Beanie Babies™. Our understanding of birds began with fascination and casual observation and grew through science and science-based education. Today many of us still collect birds — as tick marks on checklists conferring bragging rights for the number and rarity of the species recorded.

Among the rarest of the rare, if it still exists at all, is the Ivory-billed Woodpecker. It was last definitively photographed and recorded in the Singer Tract along the Tensas River in northeastern Louisiana in the 1930s by Arthur A. Allen and James Tanner, both from Cornell University. The last universally accepted

RAREST OF THE RARE:
More than a decade after
the Ivory-bill's reported
rediscovery in 2004, this
remains one of the last
definitive photographs of
the bird. It was taken in
Louisiana in 1935.



Arthur Allen/Cornell Lab of Ornithology



DISTINCTIVE FIELD MARKS: Both the male Ivory-billed Woodpecker and the male Pileated Woodpecker are large black-and-white birds with red crests. The Ivory-bill (left), however, is larger, its wings are more slender, and its tail is longer and more pointed. More telling, all-white secondary feathers and inner primaries give its wings a white trailing edge, visible from above and below. The trailing edge of the Pileated's wings is dark.

David Sibley

“BY THE TIME WORD OF THE SECRET SEARCH FINALLY LEAKED, THE EFFORT HAD PRODUCED 15 REPORTS OF IVORY-BILLS AND A FOUR-SECOND-LONG VIDEO SHOWING A LARGE WOODPECKER FLYING BETWEEN TUPELO TREES.”

sighting was by artist Donald Eckelberry, whom the National Audubon Society sent to the Singer Tract in April 1944. He documented the presence of a lone female, first sketching her, then painting a portrait of her flying over the devastation of the cutover forest.

This brings us to the bridge between our relationship with and cultural understanding of birds and the nature of science. Science is a human endeavor and, as such, is subject to all our foibles — how we feel when we get up in the morning; our feelings of love, hate, greed, competition, control, desire, and hope; and our objectives in life, including our yearning for fame or fortune, or for knowledge and wisdom.

A foundation of modern science can be found in the origins of the Royal Society of London in the 1640s — a century before the official naming and recognition of the Ivory-billed Woodpecker by the Swedish botanist, Carl von Linné, better known as Linnaeus. A group of men began meeting weekly to discuss their interest in gaining and promoting understanding of the natural

world. They knew that many commonly held “truths” were actually incorrect, uninformed opinions of the rich and powerful, whose word was generally accepted because of their social status.

In part, this is human nature. The concept of appealing to authority is ubiquitous in advertising today. An actor with a stethoscope draped over his or her shoulder sings the praises of a prescription medicine. An actor in a lab coat standing next to a dental chair exhorts us to use a specific brand of toothpaste. A former U.S. senator encourages us to get a reverse mortgage.

The individuals doing the promoting may or may not know anything about the product. The sales can be made because we recognize doctors, dentists, and senators as authority figures or, in some cases, as individuals who should know about the products. In other cases, the fame or appeal of the particular actor is enough to get us to listen. Such ploys work in advertising, but the messages conveyed may not be true. Because we are human, appeals to authority also regularly occur in

science, but they should play no role in our search for truth.

Members of the group that became the Royal Society disdained such appeals to authority. Recognizing the need for observation to ascertain truth, and often a need for experimentation to test hypotheses put forward to explain their observations, they adopted the motto *Nullius in verba*, which roughly means, “Don’t take anyone’s word for it.”

Today the Royal Society is an advisor to the British government and one of the most prestigious of scientific societies, and that motto is a tenet of the scientific method. Scientists don’t accept anyone’s explanation of anything in nature unless it is supported by strong evidence that can be reviewed and confirmed by other scientists making independent observations. With such a safeguard, understanding of the natural world moves forward, false hypotheses are weeded out, incorrect conclusions are modified, and science retains its foundation in truth.

ACCEPTED OBSERVATION

It has been more than 70 years since Eckelberry sketched his Ivory-bill. His drawings are accepted as evidence because he made them at the time of his observation and, most important, the bird had been under study by Tanner, whose in-depth report on the species, his PhD dissertation, was published in 1942. Tanner had photographed the species at the site recently, so it was well known that the bird was there (or had been there recently).

It has been 11 years since February 2004, when itinerant kayaker Gene Sparling clearly described — but did not name — a woodpecker that he saw in the forested swamp of the Cache River National Wildlife Refuge in eastern Arkansas. There had been no previous history of the Ivory-bill in the area, and the Pileated Woodpecker, which is only slightly smaller, is common there. Sparling’s description appeared on the website of the Arkansas Canoe Club and was spotted by Tim Gallagher, editor of *Living Bird*, a publication of the Cornell Lab of Ornithology. Gallagher was writing a book about Ivory-bills. He contacted his friend Bobby Harrison, an art professor at a small college in

Alabama, a skilled wildlife photographer, and a long-time Ivory-bill hunter. Each called Sparling to hear his story; both believed he might truly have seen an Ivory-bill.

Two weeks later, they were canoeing through Bayou DeView in Arkansas, with Sparling leading the way. On their second day, Gallagher and Harrison saw what they were sure was an Ivory-bill flying at perhaps less than 80 feet away, then veering out of sight into the woods. Harrison remained in the area to try to get photos; Gallagher returned to Cornell to seek support from the Lab. He conferred with John Fitzpatrick, its director, who was persuaded by Gallagher’s description. The Lab would back and expand their search.

A team of friends was pulled together to plan the undertaking. They decided on secrecy, referring to the region as “ground zero” and the bird as “Elvis” rather than “Ivory-bill.” With secrecy as the goal, many good field ornithologists were passed by in favor of others. The Nature Conservancy and the U.S. Fish and Wildlife Service collaborated, and federal, state, and private sources provided funding, aiding their efforts.

By the time word of the secret search finally leaked, the effort had produced 15 reports of Ivory-bills and a four-second-long video, shot from a canoe in April 2004 by an electrical engineer named David Luneau, showing a large woodpecker flying between tupelo trees. Fitzpatrick and 16 co-authors described the video and seven of the sightings in a paper that *Science*, the journal of the American Association for the Advancement of Science, published online on April 28, 2005.

In the 60 years since Eckelberry’s sighting, there had been other tantalizing reports of Ivory-billed Woodpeckers — from Florida, Georgia, South Carolina, Mississippi, Louisiana, and Texas — but no confirming evidence for any of them. Why all this effort now and not following the earlier reports? The answer is complex, but the com-



HELP WANTED: A sign that hung along Highway 17 near Bayou DeView urged visitors to report all sightings of the Ivory-bill but cautioned against mistaking the Pileated Woodpecker for it. The sign has been removed.

plexities are interrelated: (1) successful appeals to authority; (2) organization, diligent planning, secrecy, and control of message, including well-timed and carefully worded news releases; and (3) positive interpretation and dissemination of news releases and interviews by the media.

GOOD WITH BAD

Appealing to authority can be both good and bad. If the authority appealed to is someone who truly knows the value of the product or, in this case, the characteristics, behavior, ecology, and status of the Ivory-billed Woodpecker, then his or her endorsement can be a good thing. When Gallagher and Harrison sought the support of Fitzpatrick, that was good and appropriate. The director is an ornithologist who clearly knew about the status of the Ivory-bill and the basics of its behavioral ecology.

The big step of announcing the rediscovery to the public was an example of a misused appeal to authority. Apparently, the First Lady of the United States, Laura Bush, was going to break the news, but when word leaked, the announcement had to be made



LAST ACCEPTED SIGHTING: A lone Ivory-bill flies through a cutover forest in the painting at left, made by Don Eckelberry after he saw a woodpecker in northeastern Louisiana in April 1944. Below, Jerry Jackson stands at the base of a big baldcypress in Bayou DeView, Arkansas.



Courtesy of Jerome A. Jackson

Jerome A. Jackson

quickly in order for it to have the desired impact. The job fell to then Secretary of the Interior Gale Norton. Although Bush is a birdwatcher, neither she nor Norton is known as an expert on woodpeckers or even birds. Their use was akin to having an actor in a lab coat promote a prescription drug.

Appeals to authority continued during the searches. Some, perhaps, were inadvertent lapses on the part of news media, but they were not corrected. For example, Gallagher and Harrison were at times described as “expert scientists.” Gallagher is a trained journalist, and Harrison is a trained artist/photographer, but neither is a trained scientist. Both were often linked to Cornell, an institution known for excellence in ornithology, although Harrison had no official connection to the university at the time of the rediscovery. Attributing the status of expert scientist to them is an appeal to authority that increases a perception of

“VETERAN 60 MINUTES CORRESPONDENT ED BRADLEY ALSO EXAGGERATED THE VASTNESS AND PRIMEVAL NATURE OF THE AREA, REFERRING TO THE REGION AS THE ‘AMAZON OF NORTH AMERICA.’”

truth that may or may not be valid. I know and respect both Gallagher and Harrison and know that both are good birders. Among the general public, an identification as “good birders,” however, would likely have carried less weight than “expert scientists.”

The organizational, fund-raising, and public-relations skills of the Cornell Lab and Nature Conservancy were good and essential for the success of the Ivory-bill endeavor. Such assets were generally not available to individuals who had reported Ivory-bills previously, although in the 1950s the National Audubon Society did back and promote the report of woodpeckers in northern Florida. The secrecy during the first year of the Arkansas effort, however, effectively

eliminated voices of dissent, consolidated the message, and postponed scientific review and debate.

Media and unity of message played an enormous role in the public’s perception of the rediscovery. The image created of an “icon of the primeval forest” was something the public was ready for and wanted to believe. Unfortunately, distortions and factual errors occurred in many stories and were never corrected.

National Geographic News opened the perception-building on April 28, with the statement that the bird had been rediscovered “in a remote area of wetland forest.” That the area was wetland forest was correct, but remote? Not so correct. All of the sightings had

taken place in a three-mile stretch of Bayou DeView, a tributary of the Cache River between Arkansas Highway 17 and Interstate 40 on the outskirts of the town of Brinkley. Along it, the forest is never more than a mile wide, and it is bordered by agricultural fields on both sides. I have canoed the entire stretch; the whole way, I was never out of hearing range of truck traffic on the interstate. Occasional old tires, drink cans and bottles, and other evidence of human use of the area were common along the way.

Veteran *60 Minutes* correspondent Ed Bradley also exaggerated the vastness and primeval nature of the area, referring to the region as the “Amazon of North America.” Having taught tropical ecology in an Amazonian rainforest for many years, I assure you the region bears little resemblance to the Amazon in its extent, the size of its trees, or the diversity of life it supports. Indeed, there are immense baldcypress, especially in the area north of Highway 17, but not enough to support a population of Ivory-bills. I photographed one giant that was perhaps six feet in diameter and had a clear scar from a saw cut, having been spared from lumbering at the last minute decades earlier.

Distortion of reality sometimes resulted from use of images. A photo of an Ivory-bill taken by Allen in the Singer Tract in 1935 sometimes was used in news stories and on the Internet without noting its origin, leaving readers with the impression that the photo confirmed the rediscovery. At first, an official website included an aerial photo that clearly showed the agriculture fields on both sides of the forest, but it was quickly replaced with another, taken from only a few hundred feet up, showing neither the fields nor other signs of civilization. Instead, it showed what appeared to be a vast, continuous forest.

IVORY-BILL FEVER

Immediately following the announcement of the rediscovery, the Internet was flooded with excitement, discussion, and skepticism. The blog *Ivory-bill Skeptic* became incredibly popular, but its host went on to other things when the official searches ended. The more optimistic *Ivory-bills live!!!!* was also a site for lively debate and is still



BELIEVER: Bobby Harrison searches for the Ivory-bill in the Cache River National Wildlife Refuge in April 2006. He and Tim Gallagher reported seeing the bird two years earlier.

Joel Sartore/National Geographic Creative

A frustrating multi-year search

WRITING IN OUR August 2005 issue, search team leaders Elliott Swarthout and Ron Rohrbaugh of Cornell reported that the heady first season in Arkansas consumed more than 20,000 party-hours but produced less than a minute of total Ivory-bill observation time.

The search commenced in secrecy in March 2004, just weeks after kayaker Gene Sparling’s report, and ran between March and May 2004 and from November 20, 2004, to April 30, 2005. It also generated more than 16,000 hours of recordings that the coordinator of Cornell’s acoustic search later characterized as “suggestive” and “tantalizing” but not conclusive proof of the woodpecker’s presence in the Big Woods.

The second massive search took place between November 2005 and April 2006. (The team chose to work in the winter months because the lack of leaves permitted clear views through the forest.) It involved 22 full-time searchers and state-of-the-art acoustic and video monitoring but turned up no definitive evidence for the woodpecker’s persistence in eastern Arkansas.

The third, conducted from December 1, 2006, to April 30, 2007, involved five full-time staff and 57 volunteers but again produced no hard proof.

Six full-time staffers took to the field in Arkansas for the final time from December 4, 2007, through April 26, 2008. Overhead, photographers in low-flying helicopters shot digital pictures of several species of alarmed woodpeckers, but not one of an Ivory-bill.

Seven members of Cornell’s mobile search team investigated promising-looking habitat in southwestern Florida between January and March 2009 but concluded the search was inadequate because of the nearly inaccessible nature of most of the terrain. Teams had assessed habitat in South Carolina, Georgia, Texas, Louisiana, Florida, Mississippi, and Alabama in previous years.

\$20.3 million spent, most of it on land purchases

ACCORDING TO the U.S. Fish and Wildlife Service, federal and state governments spent more than \$20.3 million on the Ivory-billed Woodpecker in the 10 years between the October 2003 and September 2013.

States pitched in \$566,324 of the total (2.8 percent), while federal agencies — the Fish and Wildlife Service, USDA Natural Resources Conservation Service, U.S. Geological Service, Army Corps of Engineers, and others — contributed the lion's share.

Almost two-thirds of the total, \$13.2 million, went to land acquisitions that will benefit many species, and almost all of that was spent in 2005 (\$5.6 million) and 2006 (\$4.8 million), when hopes of rediscovery were highest.

The federal government spent more than \$15 billion on endangered species, and \$1.415 billion on endangered bird species, during the decade. Federal and state expenditures for the Ivory-bill amounted to 1.44 percent of the bird total.

In a 185-page draft recovery plan released in August 2007, the Fish and Wildlife Service proposed spending \$27,785,000 on the Ivory-bill through 2010. But in its final plan, published in 2010, the agency said the total cost “is unknown at this time because of our limited knowledge concerning [the woodpecker's] occurrence, distribution, and long-term actions required.”

Annual expenditure reports for endangered species are available on the website of the Fish and Wildlife Service (www.fws.gov/endangered/esa-library).

active. No holds were barred at a third site, *Peckergate: the Ivory-billed Woodpecker Hoax*, which kept readers informed of search and funding details, lapses in scientific integrity, conspiracy theories, and the money trail associated with the rediscovery.

Ivory-bill fever was an epidemic, and hundreds of us sought a cure in forested areas across the Southeast. Dozens of individuals took part in the official surveys; others did so vicariously. Several skilled scientists from the Cornell Lab and elsewhere managed data analysis, improvised field use of technology, and joined in the field effort, guiding search crews. Hope and optimism were in the air.

So was hype — both intentional and unintentional, but surely a result of exuberance, the avid birder's lure of the list, and perhaps financial opportunities. The latter were sweetened by a \$10,000 reward offered by an anonymous donor in 2006. As hopes dwindled, the Nature Conservancy announced that the reward had been increased to \$50,000, and a slick image reminiscent of wanted-dead-or-alive posters seen in westerns appeared on websites, leading observers to fear that someone might fail to read the fine print and bring in a dead bird.

Anything Ivory-bill became highly collectible, and Arkansas artisans offered all manner of objects with Ivory-bills painted on them: gourds, slabs of wood, dishes, and more. Old trading cards were highly prized. T-shirts, baseball caps, woodcarvings — you name it and it probably was available with an Ivory-billed Woodpecker emblazoned on it. So, too, were items with negative messages. An Arkansas radio station, tired of the hype, sold hats, t-shirts, and mugs featuring an Ivory-bill with fingers wrapped around its neck and the words “The woodpecker must die.” Those disappeared when people complained about the threat to an endangered species.

More than a few observers tried to shift attention back toward the evidence proffered to support the rediscovery. Richard Prum, Mark Robbins, and I argued in the summer of 2005 that the woodpecker in the Luneau video was a Pileated, not an Ivory-bill. David Sibley described how

he reached the same conclusion in a comment published in *Science* in March 2006. And J. Martin Collinson, a member of the Records Committee and Taxonomic Sub-Committee of the British Ornithologists' Union, added his voice a year later, suggesting in the journal *BMC Biology* that the images in the video simply were “not good enough” to identify the woodpecker.

'NO DEFINITIVE EVIDENCE'

Ultimately, the searches extended to eight southern states and included more than half a million acres of potential habitat, but indisputable evidence of the bird's existence never emerged. Official searches ended with the 2008 season, although true believers (often known as TBs) continue looking to this day — and even the cynics still hope.

As for the official effort, Cornell's Ivory-bill website says it clearly: “[N]o definitive evidence of a surviving Ivory-bill population was found during the recent searches.” I concur with the assessment. Data analysis at Cornell continues, and the Lab is ready to field a team of searchers if promising reports appear. But that apparently hasn't happened; information on the website seems not to have been updated any more recently than perhaps 2010.

Among other efforts, in May 2005, Geoffrey Hill and colleagues at Auburn University reported the presence of Ivory-bills along the Choctawhatchee River in northwestern Florida. (Hill described his search in a feature article in this magazine.) They “believe” — but their efforts also lack definitive evidence and have been reduced to only occasional visits.

The last post on Hill's website notes: “Grant money to support our ivorybill searches has dried up. The reporters and movie producers are gone. The groups of enthusiastic volunteers have dwindled to nearly zero. Ivorybill enthusiasm has pretty much evaporated. Honestly — this is the way I like it — calm, quiet, more about birding and wildlife photography than epic searches for legendary animals.”

The Ivory-bill website maintained by the U.S. Fish and Wildlife Service is much less direct in its assessment: “Additional evidence was collected

Reported Ivory-bill Sightings Since 1944



1. Big Cypress area, about 1950
2. Chipola River, 1950-52
3. South of Tallahassee, July 1952
4. Homosassa Springs, April 1955
5. Altamaha River Basin, 1958
6. Near Thomasville, 1958
7. West of Aucilla River, 1959
8. Neches River Swamp, 1966, 1968
9. Near Elgin Air Force Base, 1966
10. Green Swamp area, 1967
11. Polk County, 1967-1969
12. Atchafalaya Basin, 1971
13. Noxubee River, March 1973
14. Ogeechee River, July 1973
15. Black Creek, 1978
16. Pascagoula River, February 1982
17. Loxahatchee River, April 1985
18. Near Yazoo River, March 1987
19. Ojito de Agua area, 1988
20. Pearl River Swamp, April 1999
21. Cache River, February 2004
22. Choctawhatchee River, 2005-2008

Sources: Jackson, Jerome A., 2002, Ivory-billed Woodpecker (*Campephilus principalis*), in *The Birds of North America*, No. 711 (The Birds of North America, Inc., Philadelphia); Jackson, Jerome A., 2004, *In Search of the Ivory-Billed Woodpecker* (Smithsonian Books, Washington, D.C.); and the Nature Conservancy.

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during the past four years [2004-2008] (including both auditory encounters and sightings concentrated in certain areas). This additional evidence supports the hypothesis that Ivory-billed Woodpeckers continue to exist in Arkansas and other parts of the range. However, due to the inability to reliably locate birds, we cannot at this time conclude that a population of Ivory-billed Woodpeckers is established in this region.”

The service’s web page also includes the following statement: “The Fish and Wildlife Service has, independently and objectively, reviewed published interpretations of the Luneau video cited in Fitzpatrick et al. (2005). This review led us to conclude that the alternative interpretations of Sibley et al. (2006) and Collinson (2007) fail to credibly support their assertion that the wood-

pecker in the Luneau video could reasonably be a Pileated Woodpecker.”

Independently? Objectively? Says who?

SUMMARY DISMISSAL

Science is served neither by the anonymity of this statement nor by the lack of explanation as to why two articles published in peer-reviewed literature should be summarily dismissed as wrong. Government science should not get a pass on rigor. Sibley et al. (2006) ran in *Science*, the same journal that published the original report of the rediscovery. This is the stuff that generates the kinds of distrust and suggestions of ulterior motives that can be found online under the title “Peckergate.”

What more do we know about the Ivory-billed Woodpecker, its habitat, or

other creatures in that habitat as a result of the searches? Since no definitive evidence of the Ivory-bill has been found anywhere in North America, it would seem that we really haven’t learned anything new about the Ivory-bill.

If the searches were done systematically, and if quantitative data were collected on forest conditions and composition wherever searches were made, then we would have gained a greater understanding of those ecosystems. Thus far, six years after the searches ended, little evidence of such data collection has appeared in the scientific literature. I hope that, if the data were collected, we will soon begin to see the results. It would seem that a bibliography of all the scientific products of the searches should be available on the Internet. Such a resource could well be a treasure trove that would spur further

“I NEVER WALK THROUGH A REMNANT FOREST IN THE SOUTHEAST WITHOUT THINKING AND HOPING, DEEP IN MY HEART, THAT I MIGHT REDISCOVER THE LORD GOD WOODPECKER.”

interest and research into the biodiversity and regional variation in our bottomland hardwood forest ecosystems.

On the other hand, the searches were done by different groups of people with varying levels of expertise in often very inhospitable conditions. Were efforts made to maximize and standardize data collection? That's not clear from the recovery plan, field notes, or season reports that are available online.

The tidbits we have learned thus far include a view of a spectacular leucistic Pileated Woodpecker, photographed by Martjan Lammertink, an excellent woodpecker ecologist who led the scientific aspects of Cornell's searches. The bird was so white as to seem truly ghostly, but it would not reasonably be

mistaken for a normal Ivory-bill. Other leucistic Pileated Woodpeckers are known from elsewhere in

North America (photos are posted on the Internet), and the extent of the white varies among individuals. Thus, a less white leucistic Pileated could conceivably result in a mistaken identification.

Another thing we have learned is that multiple species can make sounds like the *kent* call and double-rap produced by Ivory-bills and their close relatives. For example, Blue Jays, young white-tailed deer, and some tree frogs are capable of generating *kent*-like notes. Pileated and Red-bellied Woodpeckers make double-raps, and tree limbs hitting together in the wind and even the wings of ducks taking off from a woodland pond can sound like a double-rap.

The rediscovery of the Ivory-bill seemed miraculous when it was

announced in 2005. I believed — until I saw the data presented in *Science*, and waded and canoed the forested waters of Bayou DeView. To me, the forest along the Cache River and perhaps even the White River is neither large enough nor old enough to support a population of Ivory-billed Woodpeckers. Perhaps in time it could do so.

Today the unsubstantiated observations of Sparling, Harrison, Gallagher, and a few others in the Cache River area of Arkansas in 2004 — 60 years after the last confirmed sighting — seem unlikely. How different this saga might have been if each had been wearing one of the small digital movie cameras we have today!

We know that humans sometimes see what they want to see. I once spotted a Wild Turkey on a Christmas Bird Count in southeastern Iowa and pointed it out to the five other people in my car. We all got out and looked at it through our binoculars. All agreed with my identification. A few minutes later, after we had

Difficult to say good-bye

In 2010 and 2012, five teams of researchers published studies in which they concluded either that the Ivory-billed Woodpecker was extinct or that the odds of finding a living Ivory-bill were less than 1 in 15,625.

By what procedure is a species formally declared extinct? How long must we wait before we know it is no more?

According to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), a species may be judged extinct or extirpated if one of three conditions is met:

- If there exists no remaining habitat and there have been no records of the species despite recent surveys
- If 50 years have passed since the last credible record of the species, despite surveys in the interim
- Or if there is sufficient information to document that no individuals of the species remain alive.

Certainty is harder to come by in the United States and in the eyes of the International Union for Conservation of Nature, publisher of the widely accepted IUCN Red List of Threatened Species.

According to the IUCN, a species may be called extinct when “no reasonable doubt” remains that the last individual has died: “A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), through-

OVER 50 YEARS AGO: This photo is the last record of Eskimo Curlew. It was taken on Galveston Island, Texas, in 1962.



Don Blutz/Western Foundation of Vertebrate Zoology

out its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.”

In the United States, where the Fish and Wildlife Service is required to survey the status of each animal listed under the Endangered Species Act at least once every five years, the official guidance is even vaguer:

“Unless all individuals of the listed species had been previously identified and located, and were later found to be extirpated from their previous range,” write federal regulators, “a sufficient period of time must be allowed before delisting to indicate clearly that the species is extinct.”

AUTHORITY: The rediscovery was announced in the journal *Science* on June 3, 2005. George Miksch Sutton's painting adorned the cover.

driven closer for a better view, we discovered that my turkey was a stump. On a twig reaching up next to it, two red leaves blew in the wind.

We know the power of suggestion can influence one's view. No one else can know what the Ivory-bill observers saw. Among a diversity of scientists, the blurry four-second-long video of a bird in flight is at best ambiguous. That's why we have the scientific method. It's nothing personal; if we seek the truth, we can't just take another person's word for it.

A LAST MESSAGE

I have one last message for the true believers: Many characteristics that were reported during the search — not only the *kent* call and double-rap but also the bird's flight style — have been taken as definitive of an Ivory-bill, but how birds fly varies just as how we move varies when we stroll, walk briskly, or run. No woodpecker that I've studied always has a consistent undulating flight. When going somewhere distant, such as returning to roost or taking food back to the nest, any woodpecker may fly more directly and level than when it is moving from tree to tree while feeding. Undulation also seems to be relatively greater in smaller woodpeckers and less in larger ones. I've watched Pileateds fly straight and level, and I've watched them swoop in undulations. The behavior of birds varies among individuals and with changing circumstances — just as our behavior varies.

I applaud the enthusiasm of the TBs. Whether they find an Ivory-bill or not, there's much to learn about any species. I hope they take good notes and document their observations. Maybe, just maybe, one of them will come up with definitive proof. I never walk through a remnant forest in the Southeast without thinking and hoping, deep in my heart, that I might rediscover the Lord God woodpecker.

Today the Brinkley, Arkansas, website makes no mention of the notoriety gained when it briefly hosted Ivory-bill hunters and was the home of Ivory-bill haircuts, Ivory-bill burgers, an Ivory-bill gift shop, and the Ivory-bill Inn. Most are gone, and the inn has returned to its




former self as a Super 8 Motel. The Ivory-billed Duck Hunters Lodge is the only name that still remains. The town's hoped-for economic rebirth is past. As a 2008 headline in the *New York Times* put it, "Without proof, an Ivory-billed boom goes bust." Today Brinkley focuses on promoting the Central Delta Depot Museum and the town's annual Choo Choo Ch'Boogie Delta Music Festival.

Perhaps the sadness we feel in losing this great bird can be converted to a passion for, and commitment to, saving other species. We know the causes of extinction, as did Elizabeth Gordon in 1912, when she wrote *Bird Children*. Her poem about the Ivory-bill focuses clearly on a major cause for the bird's final decline toward oblivion. Her words are illustrated by a painting by M.T. Ross showing a male Ivory-bill with a child's face perched on the stub of a dead tree. The woodpecker looks down at a woodsman swinging an ax at a large tree. She wrote:

*Ivory-billed Woodpecker said:
"Dear me!*

*They're cutting down my family tree;
Where can I live, I'd like to know,
If men will spoil the forest so?"*

By 1912, even children were being informed of the potential extinction of this largest of North American woodpeckers.

It seems likely that the Ivory-bill's century-long dance with extinction has ended. But another tenet of the scientific method is that you can't prove something doesn't exist. The truth IS still out there. 

TABLET EXTRAS

Tap the links below to learn more about searches for the Ivory-billed Woodpecker.

TRUTH IS OUT THERE

Jerry Jackson assesses a 2002 report of Ivory-billed Woodpeckers in the Pearl River Swamp.

AT LEAST ONE MALE

In *Science* in 2005, John Fitzpatrick and others announce the Ivory-bill's rediscovery (PDF).

OLD FRIEND FOUND

Eyewitness accounts of sightings in 2004 from the Cache River, Arkansas.

THE OTHER GUYS

Geoffrey Hill writes about searching along the Choctawhatchee River in Florida.

FAITH-BASED ORNITHOLOGY

Jerry Jackson decries the search for the Ivory-bill as faith-based ornithology (PDF).

FINAL REPORTS

The Cornell Lab of Ornithology's official summaries of searches in Arkansas, Louisiana, and Florida.

BOOM GOES BUST

The *New York Times* describes Brinkley after the Ivory-bill frenzy.

1 IN 15,625

Researchers calculate the odds of finding a living Ivory-bill today.

No tablet? Find a link to all Tablet Extras at www.BirdWatchingDaily.com/the-magazine/current-issue

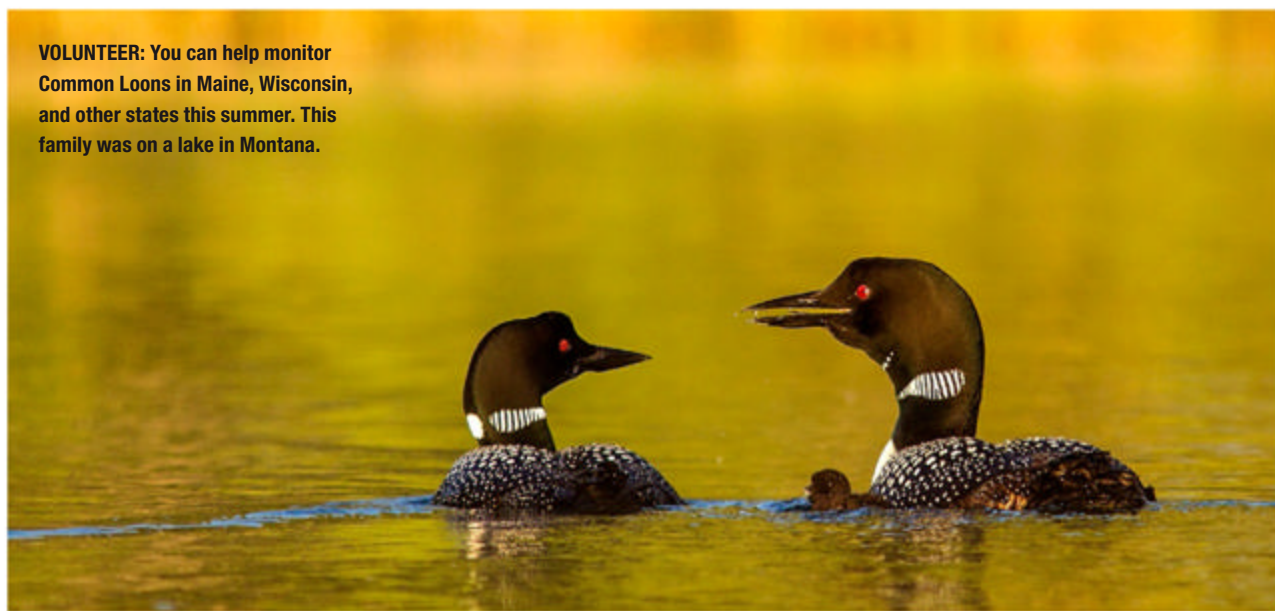
*Jerome A. Jackson is professor emeritus at Florida Gulf Coast University and Mississippi State University, and a fellow of the American Ornithologists' Union and the American Association for the Advancement of Science. He served in 1986 on an Ivory-billed Woodpecker Advisory Committee to evaluate the status of the Ivory-billed Woodpecker and, more recently, on the Ivory-billed Woodpecker Recovery Team, both appointed by the U.S. Fish and Wildlife Service. He has searched for the woodpecker throughout the southeastern United States and, during a five-week expedition in 1988, in Cuba. He also served on the official planning team for a 2002 search in the Pearl River Swamp of Louisiana. He wrote the account on the Ivory-bill (No. 711) in *The Birds of North America* (Cornell Lab of Ornithology, 2002), and he is the author of *In Search of the Ivory-Billed Woodpecker* (Smithsonian Books, 2004, 2006).*

Make your birdwatching

60+ citizen-science projects taking place between now and July 31

COUNT!

VOLUNTEER: You can help monitor Common Loons in Maine, Wisconsin, and other states this summer. This family was on a lake in Montana.



Chuck Haney

WE LOVE eagle watches, bird surveys, loon counts, breeding bird atlases, and other citizen-science projects. They're valuable and fun, they're a good way to make friends, and they're a superb way to advance bird conservation.

We maintain an up-to-date list of year-round projects on our website. In our August issue, we published a list of more than 50 projects that took place

throughout the second half of 2014. In this issue, you'll find descriptions, URLs, and contact info for over 60 more. Each one will be starting up between February 1 and July 31. All rely on volunteers like you.

Please join in! You'll be lending your birdwatching skills to one of the most important goals we can think of — adding to our understanding of North America's birds.

PROMOTE YOUR PROJECT!

You can find a list of year-round citizen-science projects on our website. Please add to it, and help us keep it up to date. Send an email to mail@birdwatchingdaily.com containing the following information:

1. Name of project
2. Name of coordinating organization
3. Start and end dates
4. A brief description
5. Web address
6. Name of a contact person
7. Contact person's email address and phone number



CITIZEN-SCIENCE PROJECTS ONLINE

Find a fun year-round project near you:

www.birdwatchingdaily.com/featured-stories/year-round-citizen-science-projects/

FEBRUARY-JULY

Citizen-science projects taking place between February 1 and July 31, organized by month and then arranged by date. (Projects with stated dates come first, followed by more and more general characterizations.)

FEBRUARY

BALD EAGLE WATCH (COLORADO)

Rocky Mountain Bird Observatory

WHEN: February 1-August 1

WHAT: Monitor eagle nests across the Front Range to provide information to biologists on the nesting success of the Colorado population.

WEB: rmbo.org/v3/OurWork/Science/_CitizenScience/BaldEagleWatch.aspx

CONTACT: Jeff Birek, jeff.birek@rmbo.org, (970) 482-1707 x25

GREAT BACKYARD BIRD COUNT

Audubon, Cornell Lab of Ornithology, Bird Studies Canada

WHEN: February 13-16

WHAT: Tally the numbers and kinds of birds you see for at least 15 minutes on one or more days of the count and submit your observations online through the GBBC website (birdcount.org) or eBird.

WEB: gbbc.birdcount.org

CONTACT: Zach Slavin, zslavin@audubon.org, (202) 600-7962

NEW HAMPSHIRE WINTER BACKYARD BIRD SURVEY

New Hampshire Audubon Society

WHEN: Second weekend of February

WHAT: Report any species visiting your yard and/or feeders in New Hampshire. Originally a "Cardinal-Tufted Titmouse Census," it was expanded in 1987 to gather information on the distribution and abundance of many winter species.

WEB: www.nhaudubon.org/backyard-winter-bird-survey

CONTACT: Rebecca Suomala, rsuomala@nhaudubon.org, (603) 224-9909 x309

NOCTURNAL OWL SURVEYS (CANADA)

Bird Studies Canada

WHEN: Late February to June 15, depending on the province

WHAT: Listen for calling owls along a predetermined route consisting of a minimum number of evenly spaced stations.

WEB: www.bsc-eoc.org/volunteer/natowls/index.jsp?lang=EN&targetpg=index

CONTACT: Jody Allair, raptor@birdscanada.org, (888) 448-2473

RUBY-THROATED HUMMINGBIRD SPRING ARRIVAL

Hummingbirds.net

WHEN: February through May, primarily

WHAT: Submit your first sighting of Ruby-throated Hummingbird each spring to hummingbirds.net.

WEB: www.hummingbirds.net/map.html

CONTACT: lanny@hummingbirds.net

SOUTHERN ONTARIO BALD EAGLE MONITORING PROJECT

Ontario Ministry of Natural Resources, Canadian Wildlife Service, Bird Studies Canada

WHEN: February to June

WHAT: Monitor Bald Eagle nests in southern Ontario.

WEB: www.bsc-eoc.org/research/speciesatrisk/baea/

CONTACT: Jody Allair, jallair@birdscanada.org, (888) 448-2473 x117

MARCH

DINOSAUR RIDGE HAWKWATCH (COLORADO)

Rocky Mountain Bird Observatory

WHEN: March 1-May 7

WHAT: Monitor the migration of

raptors at the Dakota Hogback of Dinosaur Ridge in Jefferson County, Colorado (near Morrison).

WEB: rmbo.org/v3/OurWork/Science/_CitizenScience/HawkWatch.aspx

CONTACT: Jeff Birek, jeff.birek@rmbo.org, (970) 482-1707 x25

COLONYWATCH (COLORADO)

Rocky Mountain Bird Observatory

WHEN: March 1-August 1

WHAT: Help monitor Colorado's 15 species of colonial waterbirds. Requires only one visit, but more is better.

WEB: rmbo.org/v3/OurWork/Science/_BirdPopulationMonitoring/SpecializedPrograms/ColonyWatch.aspx

CONTACT: Jason Beason, jason.beason@rmbo.org, (970) 310-5117

RUSTY BLACKBIRD BLITZ

International Rusty Blackbird Working Group

WHEN: Early March-April, varies by state

WHAT: Search for Rusty Blackbirds (particularly flocks or concentrations) in any potentially suitable locations or habitats in states known to compose the bird's winter range.

WEB: rustyblackbird.org/outreach/migration-blitz/

CONTACT: Judith Scarl, jscarl@vtcostudies.org

INTERNATIONAL SHOREBIRD SURVEY

Manomet Center for Conservation Sciences

WHEN: March 15-June 15 and July 15-October 25

WHAT: Count and monitor shorebirds at sites in the Northeast, Southeast, and in the Lower Great Lakes/St. Lawrence River Valley. Report data via eBird.

WEB: www.manomet.org/program/shorebird-recovery-project/international-shorebird-survey-iss

CONTACT: Brad Winn, bwinn@manomet.org

NORTH AMERICAN CHIMNEY SWIFT NEST SITE RESEARCH PROJECT

Driftwood Wildlife Association

WHEN: Late March-November

WHAT: Monitor Chimney Swift nest and roost sites and develop and test small, manageable towers that can be installed by homeowners.

WEB: www.tpwwd.state.tx.us/publications/nonpwdpubs/media/dwa_chimney_swift_information_2005.pdf

CONTACT: DWA@austin.rr.com

WHOOPEE WATCH (NEBRASKA)

Crane Trust Nature & Visitor Center

WHEN: Late March through mid-April and October-November

WHAT: Attend a training session at the Crane Trust office in Wood River and then report sightings of Whooping Cranes in Nebraska.

WEB: nebraskanaturecenter.blogspot.com/2010/03/whooper-watch.html

CONTACT: Karine Gil, (888) 399-2824

CHICAGO BIRD COLLISION MONITORS

Chicago Bird Collision Monitors

WHEN: March to June and August to November

WHAT: Recover birds killed or injured from striking buildings in Chicago.

WEB: www.birdmonitors.net

CONTACT: Annette Prince, info@birdmonitors.net, (773) 988-1867

CITIZENSCIENCE

NESTWATCH**Cornell Lab of Ornithology****WHEN:** March through August, generally**WHAT:** Monitor nests to help track trends in the reproductive biology of birds nationwide, including when nesting occurs, the number of eggs laid, how many eggs hatch, and how many hatchlings survive. Data will be used to study the condition of bird populations and how they may be changing as a result of climate change, habitat degradation and loss, expansion of urban areas, and the introduction of non-native plants and animals.**WEB:** nestwatch.org**CONTACT:** nestwatch@cornell.edu**WILDLIFE ROAD WATCH****Maine Audubon****WHEN:** March-October**WHAT:** Monitor stretches of road throughout Maine and report your observations of living wildlife and roadkill. Your observations will help us push for policies that connect habitat and keep wildlife and Maine drivers safe.**WEB:** maineaudubon.org/wildlife-habitat/wildlife-road-watch/**CONTACT:** Barbara Charry, bcharry@maineaudubon.org, (207) 781-2330**APRIL****WESTERN GREAT LAKES****OWL SURVEY****Wisconsin Bird Conservation Initiative****WHEN:** April 1-15**WHAT:** Record all owls detected during a five-minute listening period at each station during roadside survey.**WEB:** wiatri.net/projects/birdroutes/owls.htm**CONTACT:** Ryan Brady, ryan.brady@wisconsin.gov, (715) 685-2933**WESTERN GREAT LAKES OWL MONITORING (MINNESOTA)****Hawk Ridge Bird Observatory****WHEN:** April 1-15**WHAT:** Record all owls detected

during a five-minute listening period at each station during roadside survey.

WEB: www.hawkridge.org/research/springowl.html**CONTACT:** Julie O'Connor, joconnor@hawkridge.org, (218) 348-2291**TUCSON BIRD COUNT****Tucson Audubon Society, University of Arizona****WHEN:** April 15-May 15 or four times a year**WHAT:** Count individuals of all bird species along routes at hundreds of sites across the Tucson area, or pick a park or other area that you'd like to monitor.**WEB:** www.tucsonbirds.org**CONTACT:** Jennie MacFarland, jmacfarland@tucsonaudubon.org**ANNUAL MIDWEST****CRANE COUNT****International Crane Foundation****WHEN:** April 18**WHAT:** Count cranes with thousands of other volunteers to help the ICF monitor crane abundance and distribution in the Upper Midwest.**WEB:** www.savingcranes.org/annual-midwest-crane-count.html**CONTACT:** cranecount@savingcranes.org, (608) 356-9462**KACHEMAK BAY SHOREBIRD****MONITORING PROJECT****(HOMER, ALASKA)****Kachemak Bay Birders****WHEN:** Mid-April to Late May**WHAT:** Count shorebirds that stop over at the Homer Spit and nearby spots in Kachemak Bay, Alaska, to advance understanding of population trends and the conservation of migrating shorebirds locally, nationally, and internationally.**WEB:** kachemakbaybirders.org**CONTACT:** George Matz, geomatz@alaska.net, (907) 235-9344**LEAST TERN AND SNOWY PLOVER PROJECT (CALIFORNIA)****Sea and Sage Audubon Society****WHEN:** Third week in April until mid-August**WHAT:** Serve as a docent at Huntington State Beach. Be a positive educator and a protector of birds and their nesting area.**WEB:** www.seaandsageaudubon.org/Conservation/LeastTerns/LETE.htm**CONTACT:** Cheryl Egger, dc.egger@verizon.net, (714) 842-9232**AUDUBON VAUX'S HAPPENING (WASHINGTON)****Pilchuck Audubon****WHEN:** Throughout northbound migration, typically April 15 to June 10**WHAT:** Look for Vaux's Swifts gathering around a brick chimney in Washington State and count them as they go in. Then report your observations using an online form.**WEB:** vauxhappening.org/Vauxs_Happening_Home.html**CONTACT:** Larry Schwitters, leschwitters@me.com, (425) 392-9161**NIGHTJAR SURVEY NETWORK****Center for Conservation Biology****WHEN:** Bright moon nights April-June**WHAT:** Count all nightjars seen or heard during a six-minute period along a predetermined nine-mile driving route at night, when the moon is 50 percent illuminated or more and above the horizon.**WEB:** www.nightjars.org**CONTACT:** conbio@wm.edu**GREAT LAKES HUMMERNET****Allen Chartier****WHEN:** April-October**WHAT:** Keep track of the first and last dates on which you see hummingbirds at your feeders, count the highest number of hummingbirds that you see at one time, and report nesting activity and vagrant or out-of-season hummingbirds.**WEB:** www.amazilia.net/MIHummerNet/index.htm**CONTACT:** Allen Chartier, amazilia3@gmail.com

ONTARIO HUMMINGBIRD PROJECT

Cindy Cartwright

WHEN: April–December

WHAT: Keep track of the first and last dates on which you see hummingbirds at your feeders, count the highest number of hummingbirds that you see at one time, and report nesting activity and vagrant or out-of-season hummingbirds, track flowers/plants preferred by your hummingbirds, and volunteer to host a hummingbird research site.

WEB: www.ontariohummingbirds.ca

CONTACT: Cindy Cartwright, hummingbirds@bmts.com, (519) 797-1313

PIPING PLOVER CONSERVATION (NOVA SCOTIA AND NEW BRUNSWICK)

Bird Studies Canada

WHEN: April–October

WHAT: Help recover endangered Piping Plover in Nova Scotia and southeastern New Brunswick, Canada. Assist with monitoring, habitat protection, outreach on beaches, resighting banded plovers, and spring or fall beach cleanups.

WEB: www.birdscanada.org/volunteer/nsplover/

CONTACT: Sue Abbott, sabbott@birdscanada.org, (902) 426-4055

MAY

GRASSLAND BIRD SURVEYS New Jersey Audubon, New Jersey Division of Fish and Wildlife's Endangered and Nongame Species Program

WHEN: May 1–June 30

WHAT: Look for grassland birds along established routes and in managed grasslands and collect data on bird abundance and habitat characteristics to evaluate the success of landowner incentive programs.

WEB: www.njaudubon.org/SectionCitizenScience/GrasslandBirdSurveys.aspx

CONTACT: Laura Stern, citizen.science@njaudubon.org

GOLDEN-WINGED WARBLER ATLAS PROJECT

Cornell Lab of Ornithology

WHEN: May 10–June 20

WHAT: Survey and conduct point counts at known and potential breeding sites of Golden-winged Warblers from May into June.

WEB: www.birds.cornell.edu/gowap/

CONTACT: Sara Barker, forest_birds@cornell.edu, (607) 254-2465

LOONWATCH (WISCONSIN) Northland College

WHEN: May 15–July 15

WHAT: Watch loons on a lake where you live or vacation or that you visit often. Record when loons arrive, if they nest, how many chicks are produced, and any potential threats to the nest site. LoonWatch's network of Loon Rangers is its primary tool for collecting critical long-term data on loons in northern Wisconsin.

WEB: www.northland.edu/sigurd-olson-environmental-institute-loon-watch.htm

CONTACT: Erica LeMoine, loonwatch@northland.edu, (715) 682-1220

THE ORIOLE PROJECT Mass Audubon

WHEN: May 15–July 31

WHAT: Record observations of Baltimore Orioles and their nests in backyards or favorite open spaces.

WEB: www.massaudubon.org/get-involved/citizen-science/report-a-bird-sighting/birds-to-watch/the-oriole-project

CONTACT: volunteers@massaudubon.org, (781) 259-2185

SARPY COUNTY BIRD COUNT (NEBRASKA)

WHEN: The second Saturday of May every year (24 hours)

WHAT: Count species (not individual birds) in one of four sections of Sarpy County. A section captain will tally the numbers and send a report to the count organizer, who totals the count for the county. Results are published in the ASO newsletter.

WEB: audubon-omaha.org and

www.facebook.com/AudubonOmaha

CONTACT: Clem Klaphake, ckavian@cox.net, (402) 292-2276

NORTHEAST NIGHTJAR SURVEY Northeast Coordinated Bird Monitoring Partnership, New Hampshire Audubon

WHEN: Early May and mid-July

WHAT: Collect information on the abundance and distribution of Eastern Whip-poor-will, Chuck-will's-widow, and Common Nighthawk in the Northeast. Data will be used to track population trends and to identify areas where the species may still be relatively abundant.

WEB: www.bsc-eoc.org/birdmon/nightjars/about.jsp

GREAT WISCONSIN ORIOLE COUNT

Natural Resources Foundation of Wisconsin, Wisconsin Bird Conservation Initiative, Wisconsin Society for Ornithology

WHEN: May

WHAT: To engage youth in observing and learning about Baltimore Oriole, put up an oriole feeder or grape jelly and oranges in a place that your group can see easily. Pick two days in May to count how many orioles you see and record your data. Send your results to the Great Wisconsin Birdathon.

WEB: www.wibirdathon.org/nrfw/oriolecount.asp

CONTACT: Alyson Douglas, Alyson.Douglas@Wisconsin.gov, (608) 266-1430

WISCONSIN MARSHBIRD SURVEY

Wisconsin Bird Conservation Initiative

WHEN: May–June

WHAT: Broadcast calls and record rails, bitterns, coots, grebes, and other marshbirds detected at 5–10 survey points along a predetermined route at dawn or dusk in a Wisconsin wetland.

WEB: wiatri.net/projects/birdroutes/marshbirds.htm
CONTACT: Ryan Brady, ryan.brady@wisconsin.gov

wisconsin.gov, (715) 685-2933

WISCONSIN NIGHTJAR SURVEY Wisconsin Bird Conservation Initiative

WHEN: May–June

WHAT: Record singing Eastern Whip-poor-wills and Common Nighthawks during six-minute stops along roadside survey routes.

WEB: wiatri.net/projects/birdroutes/nightjars.htm

CONTACT: Ryan Brady, ryan.brady@wisconsin.gov, (715) 685-2933

SCOUT ARRIVAL SURVEY Purple Martin Conservation Association

WHEN: Spring

WHAT: Report the date on which Purple Martins are first seen in your community.

WEB: www.purplemartin.org/scoutreport/

CONTACT: info@purplemartin.org, (814) 833-7656

NOVA SCOTIA PIPING PLOVER CONSERVATION PROGRAM Bird Studies Canada

WHEN: Spring

WHAT: Patrol beaches across Nova Scotia to assist with cleanups, education, plover protection, and data collection (numbers of eggs hatched and chicks fledged).

WEB: www.bsc-eoc.org/volunteer/nspllover/index.jsp

CONTACT: nspllovers@gmail.com

GREAT LAKES MARSH MONITORING PROGRAM

Bird Studies Canada

WHEN: Spring and summer

WHAT: Track the presence and abundance of birds and amphibians along assigned routes in marshes in Ontario and Great Lakes states.

WEB: www.birdscanada.org/volunteer/glmp/

CONTACT: Kathy Jones, volunteer@birdscanada.org, (888) 448-2473

CITIZENSCIENCE

**PRAIRIE MARSH
MONITORING PROGRAM****Bird Studies Canada****WHEN:** Spring and summer**WHAT:** Track the presence and abundance of birds and amphibians along assigned routes in marshes in Canada's prairie provinces.**WEB:** www.birdscanada.org/volunteer/ppmmp/**CONTACT:** prairieprograms@birdscanada.org, (306) 249-2894**QUÉBEC MARSH
MONITORING PROGRAM****Bird Studies Canada****WHEN:** Spring and summer**WHAT:** Track the presence and abundance of birds and amphibians along assigned routes in marshes in Québec.**WEB:** www.birdscanada.org/volunteer/qcmmp/**CONTACT:** Andrew Coughlan, acoughlan@birdscanada.org, (866) 518-0212**ARIZONA IMPORTANT BIRD
AREA PROGRAM****Arizona Audubon and Tucson
Audubon Society****WHEN:** Spring and summer**WHAT:** Collect bird data at remote sites or special sites that are not accessible to the public.**WEB:** www.aziba.org**CONTACT:** Jennie MacFarland, jmacfarland@tucsonaudubon.org, (520) 209-1804**PROJECT SAFE FLIGHT****New York City Audubon****WHEN:** Spring and autumn migrations**WHAT:** Patrol the streets of New York City in search of dead and injured birds that have collided with buildings. Injured birds will be taken to animal-care centers or rehabilitators and then released after their recovery. Dead birds will be transferred to the New York State University in Albany. All collected birds, dead or injured, are entered in our database.**WEB:** www.nycadubon.org/index.php/project-safe-flight and www.facebook.com/pages/

NYC-Audubon-Project-Safe-Flight/219557778088538

CONTACT: info@nycadubon.org, apalmer@nycadubon.org, lmleczko@nycadubon.org, (212) 691-7483**JUNE****HARBOR HERONS****New York City Audubon****WHEN:** June 1-October 31**WHAT:** Observe and chart herons' flight lines from breeding colonies to foraging sites. Data will be analyzed by NYC Audubon conservation staff.**WEB:** nycadubon.org/issues-of-concern/harbor-herons**CONTACT:** volunteer@nycadubon.org, (212) 691-7483**NICOLET NATIONAL FOREST
BIRD SURVEY (WISCONSIN)****Cofrin Center for Biodiversity,
University of Wisconsin-
Green Bay****WHEN:** Second weekend in June**WHAT:** Working in small groups, record all birds seen and heard from a single point during a 10-minute period in the longest-running volunteer bird-monitoring program in a U.S. national forest.**WEB:** www.uwgb.edu/birds/nnf/**CONTACT:** biodiversity@uwgb.edu, (920) 465-5032**LAKE WALES RIDGE JAY
WATCH (FLORIDA)****Archbold Biological Station,
Florida Fish and Wildlife
Conservation Commission****WHEN:** Mid-June to mid-July**WHAT:** Attend training sessions in the spring to learn about scrub-jays, their habitat, and protocols for observing and tracking them, then count them on conservation sites.**WEB:** www.nature.org/ourinitiatives/regions/northamerica/unitedstates/florida/volunteer/jay-watch-volunteer-to-monitor-florida-scrub-jays.xml**CONTACT:** Claire Sunquist, Claire.sunquist@myfwc.com, (352) 732-1225**MOUNTAIN BIRDWATCH 2.0****Vermont Center for Ecostudies****WHEN:** June**WHAT:** Conduct 20-minute point counts for long-term monitoring of Bicknell's Thrush, Swainson's Thrush, Hermit Thrush, White-throated Sparrow, Fox Sparrow, Winter Wren, Blackpoll Warbler, Black-capped Chickadee, Boreal Chickadee, Yellow-bellied Flycatcher, and red squirrel.**WEB:** www.vtecostudies.org/MBW/**CONTACT:** Judith Scarl, jscarl@vtecostudies.org, (802) 649-1431 x7**CANADIAN LAKES LOON
SURVEY****Bird Studies Canada****WHEN:** June, July, August**WHAT:** Watch for pairs of loons, look for newly hatched chicks, and record the number of chicks that survive the summer.**WEB:** www.birdscanada.org/volunteer/clls/**CONTACT:** volunteer@birdscanada.org, (888) 448-2473 x124**BIRD CONSERVATION NETWORK
SURVEY (ILLINOIS)****Chicago-area Bird
Conservation Network****WHEN:** Two breeding-season visits(June) mandatory, other visits optional
WHAT: Conduct five-minute point counts of breeding birds in the natural areas of the Chicago region and enter data on ebird.org/content/bcn.**WEB:** www.bcnbirds.org/census.html
CONTACT: Lee Ramsey, leeramsey@comcast.net, (847) 501-4683; Judy Pollock, jpollock@audubon.org, (847) 328-1250**BIRDS IN FORESTED
LANDSCAPES****Cornell Lab of Ornithology****WHEN:** Breeding season**WHAT:** Choose a study species, select survey points in forest patches of different sizes, visit each point twice during the breeding season, look for evidence of breeding success, and record characteristics about your study site.

WEB: www.birds.cornell.edu/bfi/
CONTACT: Jim Lowe, forest_birds@cornell.edu, (607) 254-2413

COLONY REGISTRATION PROGRAM

Purple Martin Conservation Association

WHEN: Breeding season
WHAT: Report the location of active and inactive Purple Martin colony sites.
WEB: www.purplemartin.org/main/research.html
CONTACT: info@purplemartin.org, (814) 833-7656

COMMON LOON CITIZEN SCIENCE PROJECT (MONTANA)

Glacier National Park

WHEN: Breeding season
WHAT: Monitor potential loon lakes in Glacier National Park throughout the entire nesting season.
WEB: www.nps.gov/glac/naturescience/ccrlc-citizen-science_loons.htm
CONTACT: GLAC_Citizen_Science@nps.gov, (406) 888-7986

MANITOBA BREEDING BIRD ATLAS

Bird Studies Canada, Manitoba Conservation, Environment Canada, Nature Manitoba, Manitoba Museum

WHEN: Breeding season
WHAT: Document breeding activity such as territorial song, nest-building, and adults carrying food in 10 km x 10 km squares across Manitoba.
WEB: www.birdatlas.mb.ca
CONTACT: Christian Artuso, cartuso@birdscanada.org, (204) 945-6816

NEBRASKA BREEDING BIRD ATLAS PROJECT II

Nebraska Ornithologists' Union and the Nebraska Game and Parks Commission

WHEN: Breeding season
WHAT: Survey the 520+ priority blocks in Nebraska at various times during the breeding season to

develop a list of the species that breed in each block.

WEB: www.noubirds.org/Pages.aspx?pg=19

CONTACT: Wayne Mollhoff, wmollhoff@netscape.net, (402) 944-2840

NEIGHBORHOOD NESTWATCH

Smithsonian Migratory Bird Center

WHEN: Breeding season
WHAT: Work with scientists to find and monitor nests in urban, suburban, and rural backyards, and record and report your observations.
WEB: nationalzoo.si.edu/scbi/migratorybirds/research/neighborhood_nestwatch/
CONTACT: smbc@si.edu

NORTH AMERICAN BREEDING BIRD SURVEY

U.S. Geological Survey's Patuxent Wildlife Research Center, Canadian Wildlife Service's National Wildlife Research Center

WHEN: Breeding season (June)
WHAT: Conduct three-minute point counts of breeding birds along randomly established 24.5-mile-long roadside routes throughout North America.
WEB: www.pwrc.usgs.gov/BBS/index.cfm?CFID=2843972&CFTOKEN=f4938a48f20f74dd-D2478664-9631-519E-FE9EEA-9B8E54BEE8
CONTACT: US: Keith Pardieck, kpardieck@usgs.gov, (301) 497-5843. Canada: Connie Downes, BBS@ec.gc.ca, (613) 998-0490.

OSPREYWATCH

Center for Conservation Biology

WHEN: Breeding season (year-round depending on latitude)
WHAT: Monitor nests to document Osprey breeding.
WEB: www.osprey-watch.org
CONTACT: Libby Mojica, osprey@osprey-watch.org, (757) 221-1680

PROJECT MARTINWATCH

Purple Martin Conservation Association

WHEN: Breeding season
WHAT: Check nests in your Purple Martin housing every 5-7 days, all season long, and record the contents of each nesting cavity.
WEB: www.purplemartin.org/pmw/
CONTACT: info@purplemartin.org, (814) 833-7656

SOUTH DAKOTA BREEDING BIRD ATLAS 2

Rocky Mountain Bird Observatory

WHEN: Breeding season
WHAT: Search for birds and evidence of breeding in blocks throughout South Dakota.
WEB: www.rmbo.org/SDBBA2/
CONTACT: Nancy Drilling, SDatlascoordinator@rmbo.org, (970) 482-1707 x14

JULY

MINNESOTA LOON MONITORING PROGRAM

Minnesota Department of Natural Resources

WHEN: Early July
WHAT: Visit one of 600 lakes on a morning in a 10-day period in early July, count adults and juveniles, and report findings.
WEB: www.dnr.state.mn.us/eco/nongame/projects/mlmp_state.html
CONTACT: Sherry Wright, sherry.wright@state.mn.us, (218) 308-2620 (Becker or Otter Tail); Sarah Verke, sarah.verke@state.mn.us, 218-999-7808 (Cook, Lake, or Itasca); Karen McLennan, karen.mclennan@state.mn.us, (218) 828-2605 (Aitkin or Crow Wing); Dorie Tess, dorie.tess@state.mn.us, (507) 359-6036 (Kandiyohi).

ADIRONDACK LOON CENSUS

Biodiversity Research Institute's Adirondack Center for Loon Conservation, Wildlife Conservation Society's Adirondack Program

WHEN: Third Saturday in July
WHAT: Record the number of adults, chicks, and immature Common Loons observed in a one-hour period (8-9 a.m.) to improve understanding of the status and trends in the Adirondack summering loon population.
WEB: www.briloon.org/adkloon/research
CONTACT: adkloon@wcs.org, cpershyn@wcs.org, (518) 891-8872

VERMONT LOON RECOVERY PROJECT

Vermont Center for Ecostudies

WHEN: Third Saturday of July or mid-May through August
WHAT: Survey a lake in Vermont (or two or three) for one hour on the third Saturday of July, or monitor a specific lake from mid-May through August.
WEB: www.vtecostudies.org/loons/
CONTACT: Eric Hanson, ehanson@vtecostudies.org, (802) 586-8064

MAINE LOON PROJECT

Maine Audubon

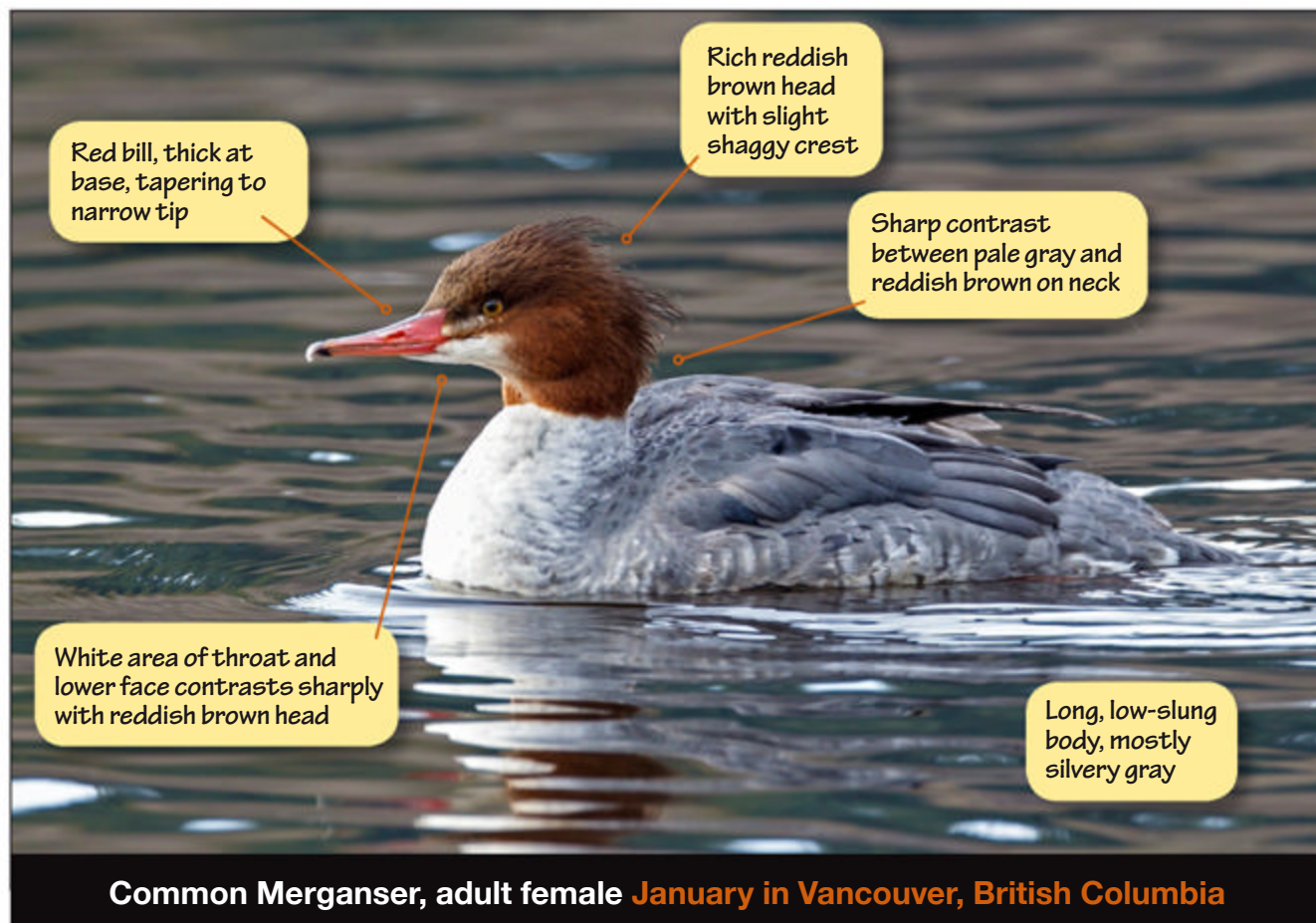
WHEN: July
WHAT: Count loons on Maine lakes and ponds. This annual one-day event helps Maine Audubon track the health and resiliency of the Common Loon population.
WEB: maineaudubon.org/wildlife-habitat/the-maine-loon-project/
CONTACT: Susan Gallo, sgallo@maineaudubon.org, (207) 781-2330

ONTARIO SWIFTWATCH

Bird Studies Canada

WHEN: Summer and fall
WHAT: Gather information on Chimney Swift abundance, distribution, behavior, and habitats across Ontario.
WEB: www.birdscanada.org/research/speciesatrisk/chsw/
CONTACT: OntarioSwiftWatch@birdscanada.org, (888) 448-2473 x124

Common Merganser



What to look for

Shape. Long-bodied and slender, with long bill tapering to a narrow tip.

Bill structure. Deep at the base, an appearance emphasized by mostly unfeathered base of the upper mandible.

Plumage of adult male. Mostly white body, glossy green head, some gray and black on back and wings.

Head pattern of female. Rich reddish brown or chestnut-brown, with sharply demarcated white area on throat and behind base of lower mandible.

Neck pattern of female. Reddish brown color of head extends down onto neck, ends sharply against gray of lower neck.

Most ducks don't regularly eat fish. People are often surprised to learn that, but fish are fast and slippery, adept at avoiding predators of all kinds; the vast majority of ducks feed on easier fare like aquatic plants, insects, or mollusks. Among North American ducks, only the mergansers are specialized for feeding on fish, and the diet is reflected in many aspects of their structure and behavior.

Mergansers have long, streamlined bodies, and when swimming underwater, they hold their wings close and propel themselves with their large feet. Their bills are long and slender, and the mandibles have serrated edges, well suited to grasping slippery prey. As visual hunters underwater, they seek out clear waters and seldom spend time on murky ponds. And because populations of small fish may rise and fall

dramatically, concentrations of mergansers may shift from year to year or from week to week.

Our largest species, Common Merganser, nests across Canada and southern Alaska, as well as in the western states and parts of the Northeast, and winters primarily in the lower 48 states. At all seasons, it chooses mainly fresh water. Some can be found on coastal bays in winter, but in general, a member of this group on salt water is more likely to be a Red-breasted Merganser.

Although the adult males are distinctive, female Common and Red-breasted Mergansers are quite similar. The species overlap extensively in range and seasonal occurrence. Birders everywhere in North America have reason to consider their ID points.

Red-breasted is only a little smaller than Common in overall length, but it is a lighter, slimmer bird. It shows a less contrasting pattern overall. Its head tends to be a duller, paler reddish brown, compared with the rich chestnut of the female Common. Its face shades to whitish on the throat and to gray about halfway down the neck.

Common shows much more contrast in those areas. In particular, Common's white throat is connected to a white oval area behind the base of the lower mandible, sharply set off against the chestnut head. On the neck, the color changes abruptly from rich brown to pale gray, without the gradual shading visible on Red-breasted.

The face patterns are obvious on typical birds, but on others the differences can seem less clear-cut. Try to get a good look at the bill. On Red-breasted, the feathering extends farther forward on the base of the upper mandible, an area that is mostly unfeathered on Common. In addition, the nostril is located farther from the base of the bill on Common, more than one-third of the way to the tip. This can be seen easily with a decent view — another example of the value of looking closely at birds.

Kenn Kaufman is co-author of *Kaufman Field Guide to Nature of New England* and author of *Kaufman Field Guide to Advanced Birding* and other books. Brian E. Small (www.BrianSmall-Photo.com) is a professional nature photographer who lives in Los Angeles.



Common Merganser, adult female January in Los Angeles County, California

The female Common Merganser is less gaudy than the male (next page). She's mostly a study in soft colors, but strong lines of contrast — between gray and chestnut on the neck, and between chestnut and white on the face — create useful field marks. The oval of white behind the base of the lower mandible is visible even at a great distance.

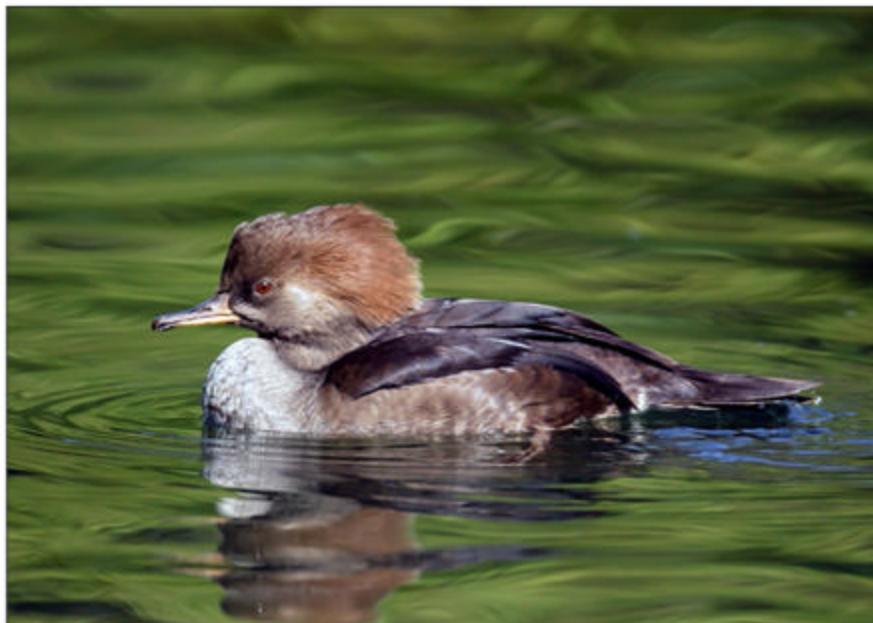
Feathering at the base of the bill extends only a short distance forward onto the upper mandible, and the large unfeathered area helps to make the thickness of the bill more obvious. Clearly visible here, the nostril is more than a third of the distance from the base of the bill to the tip, a reliable distinction from Red-breasted Merganser.



Red-breasted Merganser, adult female February in Lee County, Florida

Superficially much like the female Common Merganser, the female Red-breasted differs in a few key points. Its head color tends to be a duller, paler reddish brown, but this can be hard to see without direct comparison. Its best plumage mark involves a lack of contrast in two areas: between the rusty and gray areas on the neck, and between

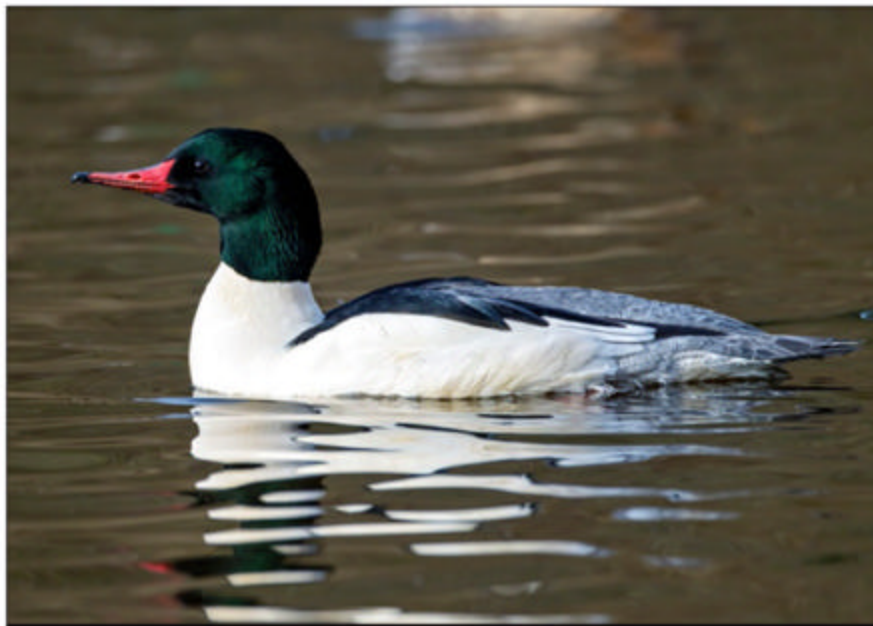
the whitish on the throat and the reddish brown of the face. If in doubt, check the bill. On Red-breasted, the bill is thinner at the base, the feathering extends farther forward on the base of the upper mandible, and the nostril is positioned much closer to the base — clearly visible in the field with a good view.



Hooded Merganser, probably adult female November in Harris County, Texas

The smallest of the merganser species in North America, Hooded Merganser is less than half the bulk of Common Merganser. Although all three mergansers occur together at times, this one tends to frequent smaller bodies of water, such as swamps and tree-lined ponds. It forms smaller flocks as well. While Common Mergansers or Red-breasted Mergansers may gather in groups of

thousands, it's unusual to see more than a few dozen Hooded Mergansers together. Adult male Hooded Mergansers are flashy, but females and young are subtle, with relatively dark and muted colors. They're not likely to be misidentified, but they may be overlooked, especially if no males are present. Watch for them on small ponds where few other diving ducks occur.



Common Merganser, adult male January in Vancouver, British Columbia

Beginning birders sometimes focus on the green head of the male Common Merganser and wonder if it might be a Mallard. Of course, no Mallard has such a long, tapered, and narrow (and red) bill. Look closely above: You can even see the serrated edges of the mandibles. (Perfect for grasping slippery fish, they give mergansers the sportsman's nickname of

"sawbill.") With experience, you will be able to identify the male Common Merganser at the limit of vision by its extremely streamlined shape and clean blocks of solid color. Don't miss an opportunity to study this bird up close, to appreciate the beauty of its simple pattern. Something to watch for: Many males show a subtle pink wash on the white underparts.

Merganser species of the world

Smew (*Mergellus albellus*)

Hooded Merganser
(*Lophodytes cucullatus*)

Auckland Merganser
(*Mergus australis*)

Brazilian Merganser
(*Mergus octosetaceus*)

Common Merganser
(*Mergus merganser*)

Red-breasted Merganser
(*Mergus serrator*)

Scaly-sided Merganser
(*Mergus squamatus*)

Mergansers and conservation

The endemic merganser of the Auckland Islands, south of New Zealand, has been extinct for a century; the last record was in 1902. A poor flier, it probably succumbed to hunting pressure and the impact of introduced pigs and cats. Brazilian Merganser of southeastern South America is critically endangered. Its total population is likely under 250. Scaly-sided Merganser of eastern Asia is considered endangered and probably numbers fewer than 5,000. For both species, the main threats involve habitat degradation on the rivers where they live.

The remaining four species are doing well, with good numbers of Smeus in Europe and Asia, Hooded Mergansers in North America, and Common and Red-breasted Mergansers throughout much of the Northern Hemisphere.

Hooded Merganser has actually increased in areas: A cavity nester, it has benefited from nest boxes put up for the Wood Duck. Common Merganser also readily uses boxes that are large enough for it. Birds in North America would benefit from the kind of large-scale programs that have provided nest boxes in parts of northern Europe. **B**



Nancy Norman

hotspots near you

Threatened: East of the Rockies, Yellow-billed Cuckoo is a common bird of open woods and streamsides, but west of the Continental Divide, the species is anything but common. Last October, the U.S. Fish and Wildlife Service listed it as Threatened in 12 western states. The agency also proposed designating 80 locations as critical habitat for the cuckoo. One of those, the Agua Fria River in central Arizona, is largely protected by the Agua Fria National Monument, which we profile on page 44.

If you're looking for new places to find birds, you can't go wrong with these four hotspots, which are described in detail on the following pages:

- California's Morro Bay State Park, where thousands of shorebirds and Brant spend the winter. It's also the site of a terrific birding festival in January.
- Lacassine National Wildlife Refuge in southwestern Louisiana, home of huge flocks of waterfowl, whistling-ducks, and herons.
- Agua Fria National Monument north of Phoenix. Several species of conservation concern are found here, including Western Yellow-billed Cuckoo.
- Julia Butler Hansen Refuge on Washington's Columbia River, where you can see Bald Eagles, Wood Ducks, and other birds.

You can also find 200 more hotspots on our website. Good birding! — Matt Mendenhall



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HOTSPOTS 201-204



no. 201 morro bay state park
morro bay, california

no. 202 lacassine national wildlife refuge
lake arthur, louisiana

no. 203 agua fria national monument
black canyon city, arizona

no. 204 julia butler hansen refuge
cathlamet, washington

AT A GLANCE

HABITAT

Grasslands, marsh, lakes, cypress trees, brush, rice fields.

TERRAIN

Flat. Rock roadways serve as levees around pool.

BIRDS

Great and Snowy Egrets, Great Blue, Little Blue, Green, and Tricolored Herons, Roseate Spoonbill, White, Glossy, and White-faced Ibis, Black- and Yellow-crowned Night-Herons, Pied-billed Grebe, Black-bellied and Fulvous Whistling-Ducks, American Coot, Greater White-fronted, Canada, Cackling, Snow, and Ross's Geese, Blue- and Green-winged Teal, Northern Shoveler, Northern Pintail, Mottled Duck, Mallard, Gadwall, Canvasback, Redhead, Lesser Scaup, Ring-necked Duck, Northern Harrier, Crested Caracara, White-tailed Kite, Red-shouldered Hawk, Bald Eagle, Merlin, Belted Kingfisher, Loggerhead Shrike, Common Yellowthroat, Eastern Meadowlark. Rare: Reddish Egret, Cinnamon Teal.

WHEN TO GO

Year-round. Best from December to February.

AMENITIES

Ramped observation deck, trails. Information booth and portable toilet at beginning of drive. Checklist for southwestern Louisiana refuges at www.fws.gov/southeast/pubs/sabine_bird.pdf.

ACCESS

National wildlife refuge. No fees. Open from sunrise to dusk. Stay on refuge roads; side roads belong to a private company.

TIPS

If you hike off the Pool roads, use bug spray; mosquitoes aren't a problem on roads. Visit after 3 p.m., when birds start feeding and the sun is setting.

FOR MORE INFO

Lacassine NWR, (337) 774-5923, www.fws.gov/swlrefugecomplex/lacassine. Louisiana Ornithological Society, www.losbird.org. Gulf Coast Bird Club, <https://sites.google.com/site/gulfcoastbirdclub>.

www.BirdWatchingDaily.com/hotspotsmap

lacassine national wildlife refuge lake arthur, louisiana 30°00'36.1"N 92°54'41.0"W



Lacassine National Wildlife Refuge protects 35,000 acres of wetlands in southwestern Louisiana. From east- or westbound I-10, exit onto Hwy. 101 and head south. Go eight miles to Hwy. 14. Turn left, go 4.5 miles, and turn right onto Illinois Plant Rd. Continue five miles to the entrance and the refuge's wildlife drive.

The most accessible portion of Lacassine National Wildlife Refuge is the 16,000-acre impoundment known locally as "the Pool." It's a wonderful place to find ducks, geese, hawks, egrets, herons, and alligators, and best of all, it's quiet and relaxing. The wildlife drive takes visitors about six miles through the protected marsh. Lacassine is a remote refuge. On most days, you may see only a few people traveling the raised levee roads.

A few hundred thousand ducks winter on the refuge. Lacassine hosted more than 100,000 Northern Pintails in winter in the 1980s, but the numbers today are only about 18,000, reflecting a downward trend for the species across North America. In addition to pintails, expect to see teal, Northern Shoveler, Gadwall, Mottled Duck, Canvasback, and Redhead, among others.

Peak season starts in December and extends well into February. It's thrilling to see and hear large flocks of geese rising up and descending in the fields and to find thousands of ducks spread out over the Pool. On the east side, a raised platform overlooks the miles of marsh; a stationary scope is located here. The tranquility, many species of birds, and lack of human occupation bring me back to the refuge every winter. — John Phillips, Jr.

John Phillips, Jr. is a wildlife photographer. He wrote about Smith Oaks Bird Sanctuary, High Island, Texas, Hotspot Near You No. 153, in February 2013.

sites nearby

Tablet readers: Tap the links to read more about each site.

Cameron Prairie NWR

35 miles west of Lacassine. About 10,000 acres of marshes and coastal prairies. Abundant waterfowl. Great for butterflies and dragonflies.

Sabine NWR

A vast 125,000-acre refuge southwest of Lake Charles. More than 300 species. King Rail, Roseate Spoonbill, Merlin.

agua fria national monument

black canyon city, arizona

34°13'53.47"N 112°6'0.09"W



Agua Fria National Monument incorporates high-mesa semi-desert grasslands and canyons 40 miles north of Phoenix. From the city, take I-17 north. Follow exit 256 to Badger Springs Rd. and turn right. Drive about one mile to the trailhead parking area. The monument is also accessible from exits 259 and 262.

The 71,000-acre Agua Fria National Monument is known primarily for the many Native American petroglyphs that can be found on flat rocks next to the Agua Fria River. The birding, however, is just as impressive. The Badger Springs Wash Trail leads down a flat, sandy wash to the cattail-choked, boulder-strewn river. Two miles long round-trip, the trail is part of an Important Bird Area that covers the monument's riparian corridors.

Agua Fria supports one of the higher densities in Arizona of nesting Yellow-billed Cuckoo, a species declared Threatened in the West in early October. Other birds of conservation concern at Agua Fria are Common Black-Hawk, Peregrine Falcon, Golden Eagle, Belted Kingfisher, Juniper Titmouse, Lucy's Warbler, Bell's Vireo, Gray Flycatcher, and Abert's Towhee.

I enjoy the quiet of hiking in the desert environment and have watched Phainopepla, thrashers, Gila Woodpecker, hummingbirds, and warblers in spindly ocotillo and creosote bushes. I've spotted raptors soaring over the tranquil river and perching on clifftops. I've rock-hopped for miles up and down the river, where flycatchers and Canyon Wrens utilize tall cattails, and various ducks bathe in shimmering ponds. — *Chuck Graham*

Chuck Graham is a writer and photographer. In our December 2014 issue, he wrote about Pinnacles National Park, Hotspot Near You No. 200.

sites nearby

Tablet readers: Tap the links to read more about each site.

Sonoran Desert National Monument

Fifty miles south of Phoenix off I-8 at exit 144. More than 487,000 acres of the most biologically diverse North American desert.

Walnut Canyon National Monument

Ten miles southeast of Flagstaff. Elevation over 6,600 feet. Mexican Spotted Owl, White-throated Swift, Pinyon Jay.

AT A GLANCE

HABITAT

Desert, river, riparian woodlands, mesas, plateaus, and grasslands.

TERRAIN

Rough and rocky. Flat in soft river sand along the Badger Springs Wash Trail. Agua Fria River is littered with boulders and requires rock-hopping. Elevation changes from 2,000 to 4,000 feet.

BIRDS

Nearly 200 species. Zone-tailed Hawk, Northern Harrier, Western Screech-Owl, White-winged and Inca Doves, Yellow-billed Cuckoo, Green Heron, Spotted Sandpiper, Common Poorwill, Anna's, Black-chinned, and Broad-tailed Hummingbirds, Gila Woodpecker, Cliff Swallow, Hooded Oriole, Great-tailed Grackle, Brown-headed Cowbird, Wilson's and Lucy's Warblers, Ruby-crowned Kinglet, Blue-gray Gnatcatcher, Brown-crested Flycatcher, Phainopepla, Black Phoebe, Bell's Vireo, Sage and Curve-billed Thrashers, Canyon Towhee, Lark Bunting, Lincoln's Sparrow, American Pipit, and Cedar Waxwing.

WHEN TO GO

October through May.

AMENITIES

Minimal. Car park, restrooms, interpretive signs, checklist.

ACCESS

National monument. No fees. The dirt road from the Badger Springs exit to the trailhead is fine for two-wheel-drive vehicles; most other roads require a high-clearance 4x4 vehicle.

TIPS

Bring a spotting scope, a hat, sunscreen, and two liters of water. You can set your scope on the broad, flat rocks in the middle of the river.

FOR MORE INFO

Agua Fria National Monument, (623) 580-5500, www.blm.gov/az/st/en/prog/blm_special_areas/natmon/afria.htm. Friends of the Agua Fria National Monument, (623) 249-4460, aquafriafriends.org. Arizona Important Bird Areas Program, www.aziba.org.

www.BirdWatchingDaily.com/hotspotsmap

AT A GLANCE

HABITAT

Wetlands, riparian areas, grassy bottoms, woodlots, river beaches, islands, and sloughs.

TERRAIN

Mostly flat or leveed. Can be birded by car.

BIRDS

Year-round: Bald Eagle, Western Grebe, Double-crested Cormorant, Great Blue Heron, Red-tailed Hawk, American Kestrel, Northern Harrier, Northern Flicker, Black-capped Chickadee, Winter Wren, Varied Thrush. Spring to fall: Cinnamon Teal, Great Egret, Osprey, Barn, Violet-green, and Tree Swallows, Purple Martin, American Goldfinch, Yellow Warbler. Fall to spring: Tundra Swan, Wood Duck, Greater Scaup, Green-winged Teal, Gadwall, Canada Goose, American Wigeon, Northern Pintail, Sharp-shinned Hawk, Peregrine Falcon, Killdeer. Rarities: Black Phoebe, Red-necked Phalarope, Clark's Grebe, Ring-billed Gull, Anna's Hummingbird, Yellow-breasted Chat.

WHEN TO GO

Year-round.

AMENITIES

Viewing platform, recent-sightings list, restrooms at headquarters. Wildlife-viewing spot on Hwy. 4 west of refuge entrance. Checklist on website. Columbia River Kayaking, west of refuge, offers guided birding tours by kayak (360-747-1044, www.skamokawakayak.com).

ACCESS

National wildlife refuge. No fees. Open dawn to dusk, year-round. Except for Center Rd., which is open to hiking June through September, refuge interior (including its waters) is closed to the public. No public transportation.

TIPS

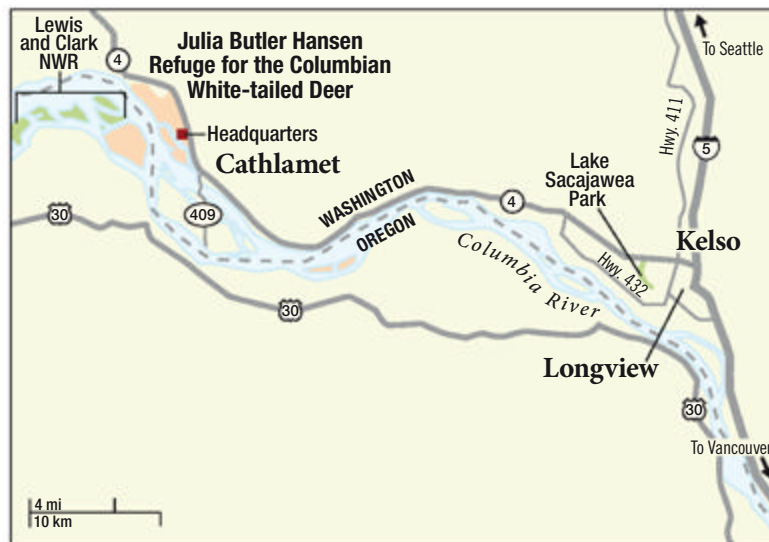
Bring a spotting scope and drinking water. When paddling, check tides and wind, and be careful for boat and ship wakes.

FOR MORE INFO

Julia Butler Hansen Refuge, (360) 795-3915, www.fws.gov/jbh. Willapa Hills Audubon Society, <http://willapahillsaudubon.org>.

www.BirdWatchingDaily.com/hotspotsmap

julia butler hansen refuge cathlamet, washington 46°13'53.47"N 123°23'55.59"W



The Julia Butler Hansen Refuge for the Columbian White-tailed Deer protects tidal swamps, marshes, and other habitats along the Columbia River in Washington and Oregon. From north- or southbound I-5, exit onto Hwy. 4 in Kelso and drive west for 28 miles. Turn left at the refuge entrance and proceed 0.2 miles to the headquarters.

This 6,200-acre refuge, named for a local congresswoman, provides habitat for an endangered subspecies of white-tailed deer — and for birds. About 250 of the 365 bird species found in Washington favor this stretch of the Lower Columbia and nearby land. It's particularly important for wintering waterfowl and migrant shorebirds and songbirds. Your best bet is to drive or cycle Steamboat Slough Rd., paddle the outskirt sloughs, hike the gated and grassy Center Rd., or sit on the river shore. I recommend all of the above.

On a visit in April, I divided my time between land and slough, walking the perimeter roads and paddling the backwaters in my canoe. Geese flying noisily between Price Island and the refuge's inland fields enlivened the misty sky in the morning. On my afternoon paddle, eight Bald Eagles flew out of a big spruce above Steamboat Slough. The birds nest in the area December through March, and several stay year-round. I saw adults and juveniles throughout the day. Great Blue Herons, Turkey Vultures, Red-tailed Hawks, Cedar Waxwings, swallows, ducks, gulls, and a Peregrine Falcon added to my day's list. — Rhonda Ostertag

Rhonda Ostertag is a guidebook author. She described William L. Finley NWR in Corvallis, Oregon, Hotspot Near You No. 120, in August 2011.

sites nearby

Tablet readers: Tap the links to read more about each site.

Willapa Bay

An hour west of refuge near Long Beach off Hwy. 101 and Hwy. 103. Attracts shorebirds in spring and fall, plus Brown Pelican, Common Loon, and grebes.

Lake Sacajawea Park

In Longview off Hwy. 4. City park with lake and woods. Waterfowl, spring warblers, swallows.



Paul Sawyer/FLPA/Winden Pictures

ALULAE UP: Gray Heron, a cousin of our Great Blue Heron, comes to a soft landing in England.

What goes up

How different birds always manage to come down safely

It was March, just before evening, and Sandhill Cranes were rising high above the Platte River in Nebraska, soaring in tight circles, and then dropping vertically into the shallow water.

The landings were the most spectacular I've ever seen. With wings outstretched and legs dangling, the cranes looked more like parachuting humans than birds. The cranes seldom moved their wings during the long descent, but a flurry of beating near the water permitted them to touch down slowly. The Platte attracts cranes because it's "a mile wide and a foot deep." They have stopped here for centuries.

To consider landing, let's start with flight. A bird requires air to flow smoothly over the top of its wings to generate lift. When a bird decides to land, it must reduce speed, cancel lift, and ultimately come to a stop. While there are exceptions, the general pattern is that, just prior to touchdown, the bird tilts backward, raising the front of its wings, thereby increasing the so-called angle of attack. This slows the speed and, if the angle is great enough, disrupts the flow of air over the wings, creating turbulent eddies that cancel lift and cause stalling. Landing is a controlled stall.

If the wings are at a stalling angle, but lift is still needed, the bird will make use of a clever anti-stall mechanism called the *alula*. Located on the leading edge of the wing just beyond the wrist, the alula consists of a single bone, to which three feathers known as alular quills are attached in an overlapping row.

To activate the alula, a bird elevates it slightly, creating space between the quills and wing. Air rushes both under and over the alula and then combines to flow smoothly over the wings, maintaining lift even when the wings are at a stalling angle.

If the speed before touchdown is too fast, a bird has a way to brake quickly: It tilts back more, so its wings are nearly vertical, and beats them forward strongly, in a horizontal plane.

When airliners land or take off, the wings are at a steep angle of attack and stalling is of great concern. The narrow leading edge of the wing, the slat, is moveable and analogous to the avian alula. The slat is moved forward and downward, creating an opening. As with the avian alula, air rushes under and over the slat and continues smoothly over the top of the wing, maintaining lift.

Birds that land on trees, the ground, or other hard surfaces have to reduce their speed to zero abruptly. Birds cushion themselves from such quick stops by collapsing their extended legs, which function like magic springs.

Landing styles depend largely on a combination of body mass and wing size and shape. For most birds, these factors are a compromise between what is ideal for their lifestyle (that is, how they get food) and efficient flight.

Consider the Great Blue Heron and Common Loon. They have similar body sizes and weights, but their wings are dramatically different. The heron has large, broad wings, while the loon has small wings that appear almost too small for the job. Why the difference?

The Great Blue feeds in shallow water that is often marshy or wooded. It has to make soft, vertical landings as well as near-vertical takeoffs. Big wings are just the ticket, since they generate enough lift for herons to drop slowly.

TABLET EXTRAS

Tap the links below to read more articles by Eldon Greij.

TOOTHLESS

Why birds have no teeth and sometimes eat pebbles.

RED-BILLED QUELEA

The most abundant bird in the world.

WASTE MANAGEMENT

What every birder should know about bird poop.

AIN'T MISBEHAVIN'

Avian mating strategies are as diverse as the birds themselves.

FRESH AIR


The amazing way birds breathe.

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The Common Loon, on the other hand, dives and swims underwater, where it feeds largely on fish. If it had the heron's large wings, its underwater swimming would be abysmal and it would starve. Fortunately, its wings favor its lifestyle, not flight efficiency. It flies fast with rapid wingbeats, and its landings are about as graceful as a dropped rock. It simply lowers its trajectory, hitting the water fast from a low angle.


Landing is difficult for albatrosses because their lifestyle requires them to spend so much time in the air. Their wings are highly efficient, long and narrow. They will not slow the birds down as much as broader wings, so albatross landing speeds are often fast.

High speeds work for water landings but are usually too much for controlled landings on islands. After a few running steps, the birds typically fall forward awkwardly and slide headfirst on their chest. On account of such clumsiness, albatrosses are often called "gooney birds" or "mollymauks," which is Dutch for "foolish gull."

For most birds, the apparent simplicity of landing hides a complex, well-coordinated series of movements that offset the natural forces for flight. The intricate aspects of landing contribute to the amazing ability of birds to be masters of the air. 

Eldon Greij is professor emeritus of biology at Hope College, located in Holland, Michigan, and the founding editor of *Birder's World* magazine.


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Laura Erickson

SATISFYING: A Yellow-rumped Warbler feeds on flies placed in a flower box by the author.

Soul food

Why a Big Year can't compete with the comforts of home

In 2013, I tried to see as many birds as I could in the Lower 48. I recorded 604 species, each one a thrill. From Atlantic Puffin to California Condor, they gave me a rapid-fire, intensely fun year.

As much as I enjoyed them, the joys of being home again are equally nourishing to my soul. My Big Year was like being served a large number of dishes at a great tapas restaurant — delicious but overwhelming. The individual delicacies blurred together in memory as well as the stomach. Day-to-day birding is more like sitting down to comfort food. Even though the variety is limited, the meal is worth savoring, and every

now and then, a bite is so perfect I can't help but blurt out a satisfied *Mmmm*.

My latest treat came as I started writing this: A Pileated Woodpecker flew onto a small hanging feeder that ordinarily attracts chickadees and nuthatches. A foot-long piece of birch with holes drilled for peanut butter, it was hardly designed for such a bruiser. The feeder twirled merrily as the enormous woodpecker, his red crest and mustache gleaming in the morning sun, pigged out for a delicious moment that I'll savor forever.

A few afternoons before, while visiting a family friend, I noticed a

TABLET EXTRAS

Tap the links below to read more by Laura Erickson.

LAURA'S BIG YEAR

Read Laura's reports during 2013, when she spotted 604 species of conservation concern.

RELUCTANCE

Bidding farewell to a favorite birding spot.

DOING GOOD

How one neighbor's work brought birds to the whole neighborhood.

THE RIGHT THING

Why you should send pigeons on their way.

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Yellow-rumped Warbler on the deck. It repeatedly approached the sliding glass door, attracted to cluster flies buzzing about inside. I smacked down a dozen or so and placed them in a flower box on the deck. Some of the flies were still alive, buzzing or walking. When one flew off, the warbler darted after it and snapped it up in midair. Then, noticing the rest, it alighted in the box for a feast. It quickly connected my stepping outside with the food, flying to the box the moment I set out a handful. It downed fly after fly, fuel that I hoped would power its migration the coming night. I took dozens of photos of it eating and, after it exhausted each delivery, staring at me through the glass, waiting impatiently for the next.

Last winter I noticed a chickadee missing the three front toes of one foot. At first, it was easy to pick out, its head and face messy where it couldn't preen or scratch. "Little Stumpy" readily came to my hand for mealworms, allowing me to keep track of it. Through the seasons, I watched it grow more competent at using the deformed foot. By late summer and fall, it was hard to distinguish from other chickadees until the moment it alighted on my hand. Spotting it each morning is as richly sustaining as adding a new species during my Big Year.

Dining on exotic delicacies in far-flung places is one of the joys of travel, but the best soul food is served much closer to home. **B**

Laura Erickson is the author of *The Bird Watching Answer Book* and other books. Last year she won the American Birding Association's highest honor, the Roger Tory Peterson Award.

¡Magnífico!



▲ **SHIMMERING:** A Magnificent Hummingbird spreads its wings at Miller Canyon in southeastern Arizona. Jesse Olsen of Cardston, Alberta, shot the photo with a Canon 7D and a 500mm lens.



► **BACKYARD**

RAPTOR: A Cooper's Hawk poses on a branch in Debbie Tromblee's Huntsville, Alabama, yard. She used a Canon EOS Rebel T3 with a 100-400mm lens on a tripod.

ONLINE PHOTO OF THE WEEK CONTEST WINNER

September-October winner • Northern Cardinal and Brown-headed Cowbird • by Robert Visconti

Congratulations to Robert Visconti of Lindenhurst, Illinois. He won our Photo of the Week Contest for September and October with this great shot of a Northern Cardinal feeding a young Brown-headed Cowbird. He took the photo from a blind in his backyard with a Nikon D7100 and a 400mm lens.

Professional photographer Alan Murphy, a frequent contributor to *BirdWatching*, was our judge. His portrait of a Snow Bunting appears on the cover of our December 2014 issue.

"I like the image because it shows the two species in a clear setting," Murphy says. "The interaction of the host cardinal adult feeding the cowbird chick is wonderful. It's a rare and beautiful glimpse into the brood parasitic behavior of the Brown-headed Cowbird."

Photo of the Week Contest

Complete rules and guidelines
www.BirdWatchingDaily.com



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Red-cockaded Woodpecker
Photo by Roy Thorman



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◀ **HIDING IN PLAIN SIGHT:** Gene McGarry of Woodstock, New York, photographed this Common Pauraque in early November at Estero Llano Grande State Park in South Texas, Hotspot Near You No. 161. He used a Canon 7D and a 100-400mm lens.

Let's hear from you!

Submit photos as full-resolution, high-quality JPG files on a CD or via email (no TIFFS, please). Include a short description of the photo: the bird name, the equipment used, and the location. Original slides and high-quality prints are also accepted, but include a self-addressed envelope with sufficient postage for return. Please include your name, address, phone number, and email address. If we publish a story or photo of yours, we'll send you a complimentary copy of the issue in which it appears. There's no payment for use of text or photos in "Your View."

Send your photos and stories to:

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Non-toxic shot

Eldon Greij writes that the use of non-toxic shot has “had mixed success” (“Toothless,” December 2014, page 46). This statement is simply not true. Lead shot was banned in the U.S. in the early '90s, and Canada followed a few years later. Subsequent studies have shown the effort to be highly successful. A report published in the *Archives of Environmental Contamination and Toxicology* in June 2004 presents data demonstrating that the bans on lead shot were having the intended effect. For that study period, lead levels in waterfowl bones had already decreased in the 60 percent range. Keep in mind that the lead shot previously deposited in marshes and wetlands was still there, slowly sinking into mud and still being ingested but at greatly reduced rates. Now, 10 years after that study, the rates when extrapolated from this original data should be considerably less. Three other investigations were reported in the *Journal of Wildlife Management* (in or around the year 2000) that show substantial reductions in lead mortality had taken place as a result of the ban on lead shot for the Mississippi Flyway, a select area of Tennessee, and in Louisiana.

Secondly, his statement regarding the NRA is deceptive. Professor Greij was talking about waterfowl and then suddenly morphs into the conversation about the NRA and its support for lead shot. This leaves the impression that the NRA supports lead for waterfowling. This is not the case. The use of lead shot for waterfowl hunting has been federal law since the '90s and has been off the NRA docket since then. The current issue with the NRA is not about lead shot and waterfowl but rather the use of lead shot for upland game hunting and for lead used in centerfire and rimfire rifle and pistol bullets. — *Paul Mayer, Elburn, Illinois*

Private lands and cranes

Wild Whooping Cranes need much more attention if they are going to survive and prosper. According to Felipe Chavez-Ramirez, director of conserva-

tion programs for the Gulf Coast Bird Observatory and science advisor for the Friends of the Wild Whoopers:

“As the Whooping Crane population has increased they have expanded their winter range so that today, only about half of the winter range is within these protected areas of Aransas and Matagorda Island National Wildlife Refuges. The importance of protecting actual and potential wild Whooping Crane wintering grounds has taken greater significance in recent years as attempts to establish reintroduced populations have not succeeded in establishing self-sustaining populations in other areas.”

Friends of the Wild Whoopers urges everyone concerned with the Aransas-Wood Buffalo population of Whooping Cranes to read the article “Private Lands Important to Whooping Cranes Wintering on Texas Coast,” available on our website, for some surprising facts. — *Pam Bates, vice president and co-founder, Friends of the Wild Whoopers, friendsofthewildwhoopers.org*

Clever muscles

I am a 14-year-old student. Even though I'm not much of a birdwatcher, your magazine has made me want to dig out my old binoculars and make a bird feeder out of an old milk carton. I wish I could have found this magazine earlier! Eldon Greij's article “Clever Muscles” was the one that really hooked me (February 2014, page 44). It opened my eyes because I have always wondered what muscles helped birds fly or be as weightless as they seem. Now, when I see birds flying outside my window, I understand how they soar and glide through the air so effortlessly. — *Meghan Tokala, Wichita, Kansas*

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Bullet bird

A split second after leaving its perch, a Northern Shrike stands still in the air



Northern Shrike (*Lanius excubitor*), Nanaimo Estuary, British Columbia, November 12, 2014, 1:41 p.m., by Steve Large

Shrikes are often referred to as butcher birds for their habit of impaling prey on thorns. Thanks to Steve Large, who posted this picture to the *BirdWatching Magazine* group on the photo-sharing site Flickr, we can also call them bullet birds.

Large watched this Northern Shrike at an estuary on Vancouver Island last fall. Shrikes prefer to scope out their prey from a high vantage point and then dive down on it, he says. This bird had just launched itself from a pear tree.

“In order to dive, shrikes must first prepare with a downward thrust of their wings,” Large says. “This drives them slightly above their original perch, where they stall and then fold their wings in a dive. When the shrike stalls, there is little movement, so it’s almost like it’s standing still in the air for a split second before the dive occurs. This is what you are seeing in the picture.”

Camera: Canon EOS-1D Mark 4

Lens: Canon 600mm with 1.4x teleconverter

Settings: 1/800, f/6.3, ISO 800, manual focus in AI Servo mode

Light: Natural

Format: RAW converted to JPG

Adjustments: Cropping, sharpening, exposure adjustment, and noise reduction



LIVIN' LARGE: Steve Large is a seventh-degree martial arts instructor who has operated a taekwondo school in Nanaimo, British Columbia, for the past 25 years. He credits his father with inspiring him to appreciate nature. He began photographing wildlife about eight years ago and frequently shoots at the Nanaimo Estuary, the Reifel Migratory Bird Sanctuary, and Boundary Bay in southern British Columbia.

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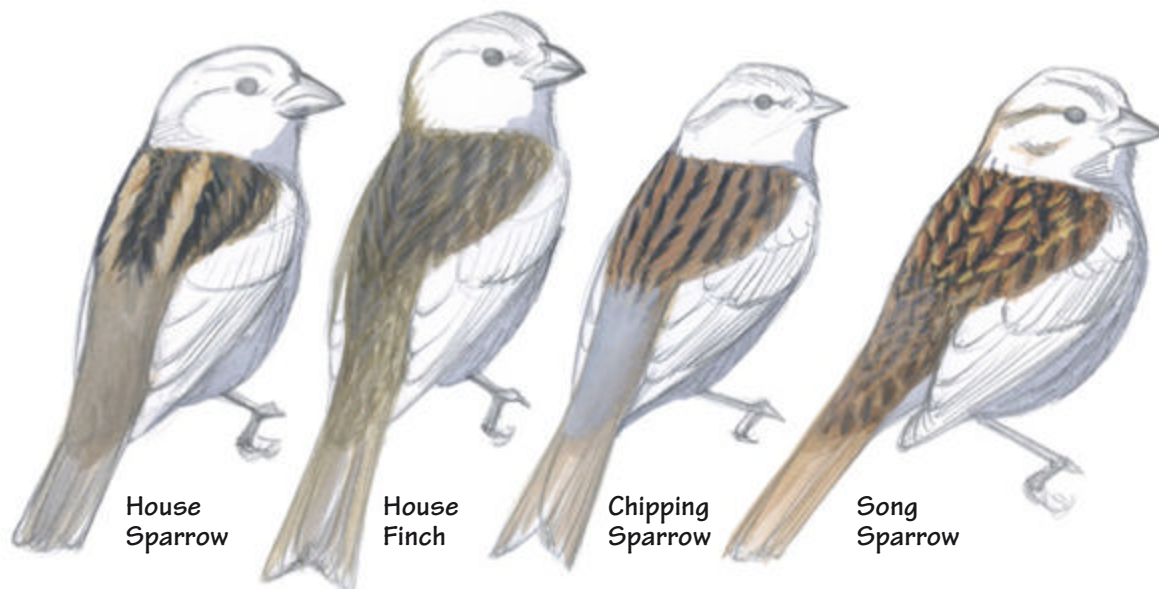
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USEFUL BACK PATTERNS: Each species above has a streaked back, but the patterns are distinctly different. House Sparrow sports bold stripes, House Finch appears smudgy, Chipping Sparrow has even streaks, and Song Sparrow looks spangled.

Back streaking

How to identify streaky sparrows by their back pattern

When we talk about identifying sparrows and other streaky brownish birds, one of the things we focus on is whether the breast is streaked or unstreaked.

This is a good place to start, as it allows us to divide birds swiftly into two groups, but what then? Or what if the bird is facing away from you? The pattern of streaks on the back can be helpful as well, but we tend to overlook this field mark.

Because all sparrows have at least some streaks on the back, the patterns can't be sorted yes or no as breast patterns can, but there is more variety in back patterns than in breast patterns. This makes them more complicated but also more useful for identification.

House Sparrow, House Finch, Chipping Sparrow, and Song Sparrow are common species that have distinctly different back patterns. I made the


“House Finch is about as indistinctly streaked as a sparrow or finch gets.”

sketches above to illustrate how useful the streaks can be.

House Sparrow's back is distinctive: two broad pale stripes bracketing a broad dark center stripe. No other common sparrow or finch shows this pattern. It's a handy clue you can use to identify a group of sparrows on the ground quickly. House Finch, by contrast, is about as indistinctly streaked as a sparrow or finch gets. It has smudgy streaks in shades of gray-brown.

Chipping Sparrow has a two-color palette, with relatively thin, even, dark streaks on a plain brownish ground

color, while Song Sparrow has a more complex pattern, essentially tricolored in black, rufous, and buff. The dark centers of the feathers and pale edges create a streaked pattern, but the streaks have a more variegated, “spangled” look than the simple linear marks of Chipping Sparrow.

Take a few extra minutes this month to appreciate the intricate back streaking on the sparrows at your bird feeder. As you develop an understanding of the variation between species, you will gain important additional clues to the birds' identities. 

David Allen Sibley is the author of *The Sibley Guide to Birds*, *Second Edition*, *Sibley's Birding Basics*, and field guides to the birds of eastern and western North America. In our last issue, he described what to look for to understand streaks and spots on birds.



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